PROMOTING HEALTHY DIETS AND ACTIVE LIFESTYLES TO LOWER-SES ADULTS

Market Research for Public Education

U.S. Department of Health and Human Services
Public Health Service

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FOREWORD

In 1979, the Surgeon General's first report on health promotion and disease prevention, *Healthy People,* opened with the pronouncement that "the health of the American people has never been better." Although still valid today, in many ways it may be more accurate to suggest that the health of the American people has never fallen more short of its potential, given what is now known about our ability to prevent unnecessary disease and disability. Considering the proof we now have that changes in a handful of behavioral risk factors — such as smoking, poor diet, a sedentary lifestyle, alcohol consumption, motor vehicle operation, and firearm use — could reduce premature mortality in this country 40 to 70 percent, we can achieve much more, especially for certain high-risk groups.

The dominant health challenges facing most Americans over the next decade, as in the 1980s, will come from the chronic diseases. New national health objectives have been set that target reductions in the rates of heart disease, cancer, and other chronic and disabling conditions by the year 2000. Many of these new objectives aim specifically at improving the health status of certain segments of the population who experience significantly higher disease rates, higher levels of risk, and lower levels of services and protection.

Progress over the next decade will not be made unless a special emphasis in disease prevention and health promotion is directed toward large segments of the U.S. population who were not reached by the efforts of the previous decade.

The market research study that is the basis of this report was commissioned by the U.S. Public Health Service to increase our understanding of how hard-to-reach Americans perceive health and the role of diet, exercise, and weight control in preventing disease. Two important lessons from this project are intended to be broadly used to extend the potential of primary prevention, specifically through the communication of health information about diet, exercise, and weight control.

The first lesson is that the most effective way for the public to hear health information is from their doctors. Physician counseling on diet, exercise, and weight control is credible to the public, which wants information on these three lifestyle components and wants it from their health care providers. But many people do not have a regular source of primary care, and the second lesson is in the value of community-based organizations, local religious organizations, and other local channels in communicating with hard-to-reach individuals where they live. Messages delivered in familiar settings by local resource persons are deemed truthful and therefore believable.

Armed with what we know about the benefits of primary prevention and health promotion and now this information on how best to reach the people who need those messages, we are more convinced than ever that we can succeed in improving the health of all Americans.

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EXECUTIVE SUMMARY

To help guide future outreach efforts, the U.S. Public Health Service undertook a market research study through the Office of Disease Prevention and Health Promotion, to understand better how members of the hard-to-reach American public perceive health and the role of three of the key behavioral risk factors—diet, exercise, and weight control—in preventing or controlling certain chronic diseases.

This report presents the findings of that study. Market research techniques—focus group discussions and an analysis of commercial market data on media use and leisure practices—were used to gather data that could be applied to the design of health communication programs.

AUDIENCE PROFILE

Based on a review of the literature, the target population for study was identified as the nearly one-third (32 percent) of the adult public whose lower socioeconomic status (SES) and higher risk profile cause them to experience a disparity in health status with the general population. The operational definition of this population segment used for the composition of the focus groups and the analysis of the commercial database was: white, black, and Hispanic men and women, ages 25 to 64, with 12 or fewer years of education, and a family income falling between the national median and the poverty level. While other minority groups are known to experience similar disparities in health status, limited resources precluded their inclusion.

STUDY DESIGN

The set of 24 focus groups was conducted with a total of 202 adults during August, September, and October of 1989 in:

- Baltimore, MD
- Chicago, IL
- Miami, FL
- New York City, NY
- Oakland, CA
- Philadelphia, PA
- Richmond, VA
- San Antonio, TX
- San Jose, CA

The groups were segmented by age, sex, and race/ethnicity, as these were variables by which the data would be analyzed for trends and patterns. Eight focus groups were conducted for each of the three racial/ethnic populations: black, white, and Hispanic (two Cuban, four Mexican American, and two Puerto Rican). Groups were evenly divided between men and women and younger (25-44 years) and older (45-64 years) persons. A mix of overweight, average weight, and underweight persons was recruited for each group so that at least half of each group were people who reported that they considered themselves overweight. Participants worked in a range of service, trade, and semi-skilled occupations.

Answers to the following questions were sought:

- To what extent is health a priority?
- What are the general attitudes toward nutrition, food, eating, body weight, weight control, and exercise? How do these differ by age, race/ethnicity, and sex?
- Are there specific beliefs about staying healthy or getting sick that influence behavior?
- What obstacles to adopting healthy behaviors are perceived?
- What might serve to motivate healthy behavior?

The following topics were covered in each focus group:

- typical daily activities, especially eating and physical activity;
- views on health, sickness, and disease;
- personal priority placed on health;
- the link of behavior and health;
- beliefs and practices related to diet, exercise, and weight control; and

- sources of health information.

In addition, participants in the last four focus groups were asked to respond to several communication concepts about diet and exercise.

FOCUS GROUP FINDINGS

Being healthy was important to the focus group participants overall, and they had a general awareness of what to do to stay healthy. Furthermore, except for a few who made it clear that they preferred the status quo, most participants expressed a genuine interest in "doing better." This interest cut across racial and ethnic boundaries, but it was slightly more pronounced with women rather than men, and older rather than younger participants. Most people had a good sense of what direction "doing better" should take.

The gap between awareness and practice, however, suggests that the link between the risk factors and disease prevention has not been internalized. Nor is there a clear understanding of what specific steps need to be taken.

PERCEPTIONS OF HEALTH

Focus group participants were presented with 16 possibilities for life priorities and they were asked to rank each of them in order of personal importance. In many ways the groups of white, black, and Hispanic men and women were remarkably consistent in their selections. All groups counted "being healthy" among their top three priorities, along with "being happy with my family." Some revealing differences also appeared. "Being close to God" was identified as the number one priority by all of the black groups, all of the groups of Hispanic women, and one group of Hispanic men. They felt that "He is the start of everything. If we want money, health, we need to be close to Him." Hispanic men selected health, family happiness, and closeness to God as their top priorities, stating that "being healthy" was a personal priority since health was necessary for them to fulfill their role as family provider and caretaker. White men and women selected health, family happiness, and "being happy with my life" as top priorities.

MEANING OF HEALTH AND SICKNESS

Among all focus group participants, "health" incorporated more than physical well-being. "Health" also included mental, and, for some, spiritual well-being. To participants, "sickness" meant being unable to function or having to be dependent on others. In general, health behaviors were followed to avoid communicable illnesses, such as colds or the flu. Among behaviors often reported were eating right, getting enough rest, getting fresh air, and drinking water.

While participants stated that they felt they could exert some control over not becoming sick, they felt chronic diseases were outside their control because they were associated with fate and heredity. In the words of one participant, "One can maintain themselves, stay healthy all their lives, but if you're going to get a disease, it's inevitable."

Healthy behaviors were not linked, in the minds of most participants, to avoiding chronic diseases since such diseases were viewed as largely uncontrollable. Nor were such behaviors generally linked to indicators of health status. For example, several obviously overweight participants proudly stated that doctors had given them a "clean bill of health." One participant succinctly stated, "I'm healthy, but I'm not physically fit."

So, although participants correctly understood that all diseases are not preventable, they did not understand the potential role that diet, exercise, and other healthy behaviors can play in reducing risk for disease or improving the management of chronic conditions. Even in the four groups that were given the additional task of responding to an educational concept that linked healthy behaviors to reduced chances of chronic diseases, it was viewed as "old news"—even when such relationships had not been raised in the previous discussion. Even though they professed the knowledge, it was not being reconciled with the strongly held belief that disease is largely outside personal control.

DIETARY PRACTICES AND PERCEPTION

Among the 202 focus group participants, only a few prepared and ate the traditional three meals a day. Instead, participants reported eating on the run, snacking, and families eating in "shifts."

While participants were able to cite the appropriate dietary "buzz words," such as fiber and oat bran, low-fat, and skinless chicken, they held a number of misconceptions associated with diet. For example, some participants referred to good and bad cholesterol as something they thought was found in food. Furthermore, participants were confused and skeptical about health claims made about certain food products on television commercials. Advertisements led many to believe that "healthy" food is the more expensive item, i.e., "high fiber with nuts and raisins" versus "plain old" cereals.

Four groups of participants were shown two different approaches to conveying dietary recommendations: "The New American Diet" concept showed a variety of foods in the approximate proportion that is recommended with a brief description of the amount shown. The second approach used pictures of healthy main dishes, snacks, and beverages on one side and their less healthy counterparts on the other crossed out by the international "no" symbol. No text was used. Virtually all participants favored the first concept, saying that it not only shows what foods to eat but makes clear the approximate quantity of what should be eaten. In addition, most thought it looks affordable.

EXERCISE HABITS AND PERCEPTIONS

The physical activity patterns of the groups were consistent with what the epidemiologic data show, that is, group members were largely sedentary. Reading, visiting with friends, and watching television were popular pastimes. In general, most participants felt that they got adequate exercise through daily activities, either at home or at work.

Black and Puerto Rican men of all ages reported more sports activities than other participants. Similarly, those participants in warmer climates reported more physical activity, both planned and incidental, than their counterparts in colder climates.

Exercise was generally regarded as the vigorous level of physical activity found in calisthenics. Health clubs, gyms, exercise equipment, and sweat were all associated with "exercise." Lower levels of physical activity, such as walking, were seldom reported as exercise except by some older women.

Participants consistently cited the lack of time and money as barriers to exercise. There also was a widely held perception that any efforts to be more active would be met with disbelief or only grudging support from family. In addition, older people acknowledged that they became less active over time.

PERCEPTIONS ABOUT WEIGHT CONTROL AND HEALTH

The primary health impact of weight control reported by participants was the generally vague perspective that they felt better when they weighed less. Most participants had difficulty separating notions of weight from their perception of health in general. That is, if they didn't see or feel anything wrong, then they were healthy.

Most people, especially women, did not consider the role of exercise in weight control. Rather, diet programs advertised on television were mentioned frequently, although usually rejected by participants as costly and ineffective.

CREDIBLE SOURCES OF HEALTH INFORMATION

Among some focus group participants, predominantly black men and women and white men, there appeared to be a distrust of institutional sources and a skepticism of medical sources. Some of the skepticism was attributed to a perception of a profit motive. Consumer advocates, such as Ralph Nader, had a more favorable image. Using a comparison approach with consumer groups might be one way to establish credibility with this target audience.

IMPLICATIONS FOR PUBLIC EDUCATION PROGRAMS

The health messages of the past decade appear not to have shaken the deeply held belief of the focus group participants that chronic diseases, such as heart disease, cancer, and diabetes, are largely due to fate and heredity and, therefore, are beyond one's individual control. The focus group results suggest that any health promotion effort aimed at this target population needs to acknowledge the interplay of biological risk factors, such as family history, with behavioral risk factors, that is, diet, exercise, and weight control, in the design of health messages. An older woman in San Jose was one of the few participants who grasped the concept so central to health promotion. She said, "If you know your family has a history of heart disease, then you have the opportunity to maybe control your life by not eating fatty foods."

The focus group results also suggest that members were interested in doing the right things to stay healthy, accompanied bv a certain amount of frustration at not knowing what is right for them, how to do it, and how to integrate such changes into their daily lives. People were making some efforts, but there was not much evidence that they were actively seeking health information or trying to reconcile conflicting messages.

More similarities than differences were apparent in the participants, attitudes and beliefs about health, their reported behaviors and practices, and their perceptions about the link of healthy behavior to the prevention of chronic disease. However, further segmentation of the study population for communication strategies could be indicated from the research, based on age, sex, or racial and ethnic variables.

When discussing what it would take to change their practices, participants wanted to have very specific, personalized instructions that they could fit neatly into their lifestyles. Suggested ideas for programs emerging from the focus groups included groups similar to Alcoholics Anonymous that could offer free, unconditional support, and the Tupperware model that would dispense recipes and cooking demonstrations to people in their own living rooms.

FINDINGS FROM SIMMONS DATA

The data used for the analysis was from the Annual Study of Media and Markets, conducted by Simmons Market Research Bureau, Inc. (Simmons), which is used by commercial advertisers to make marketing decisions. Data on television, radio, and magazine use are reported, as well as membership in community and civic organizations.

TELEVISION

The Simmons data confirmed that television is even more popular with those with a high school education or less than with the general population. However, the traditional outlets for health information on television, i.e., news reports, may actually be less effective in reaching this target audience, especially blacks and Hispanics, than they are for other adults. The popularity of the medium suggests opportunities for creative use of television time for communicating health information. For example, during the daytime, television reaches higher percentages of blacks than of whites and Hispanics. Daytime drama, with its ongoing story line, could serve as a vehicle for prevention information and demonstrate the long-term commitment to healthy diet and exercise practices and their relationship to health practices.

RADIO

The target group listens to less radio than the general population but members still comprise a large segment of certain listening audiences. The more precise targeting possible with radio makes some formats attractive channels for communicating health information. Again, news/talk and all news stations are not particularly popular. But country and adult contemporary stations are popular among whites, as are contemporary hits popular with Hispanics and whites, and urban contemporary among blacks.

MAGAZINES

The magazines that reach the less educated audience are the same as those with the widest appeal and distribution overall. Some magazines featuring special topics, such as hunting and fishing for white and black readers, motorcycles for white readers, and child rearing and epicurean for black readers might provide the opportunity for specifically tailored messages to reach segments of the target audience.

OTHER COMMUNICATION CHANNELS

Health communication programs are more effective if mass media is used in tandem with community channels for health information. The selection of channels involves identifying what groups and activities are popular with the target group and who group members perceive as credible sources of information. The Simmons data on public and civic activities and group membership revealed that only small percentages of the target population had engaged in the wide range of public activities surveyed or belonged to any of the groups included in the survey. These figures underscore the difficulty of penetrating to the community level where contacts can be frequent and personal. According to the Simmons data, the combined efforts of many national groups with local affiliate structures will reach only a small percentage of the population.

CONCLUSION

Expanding the reach of health promotion efforts will require a response to the informational and motivational challenges posed by the study population. An additional challenge will be how well health communicators address the context in which health information is received. An older man in Oakland summed it up when he identified "education and environment" as the two critical factors to making changes. The focus group participants cited their families, their jobs, and the neighborhoods where they lived both as supports and barriers to healthy changes. If health communication efforts are to have a sustained impact, then a unified approach should be taken that reinforces sound choices—making a healthy diet and active lifestyle the norm for the 1990s.

CHAPTER ONE

INTRODUCTION

This report presents the findings of a study that was undertaken to understand better how members of the hard-to-reach American public perceive health and the role of diet, exercise, and weight control in the prevention of certain chronic diseases. Market research techniques — focus group discussions and an analysis of commercial market data on media use and leisure practices — were used to gather data that could be applied to the design of health communication programs.

OVERVIEW

There is general agreement that lifestyle changes have already been undertaken among "innovators" and "early adopters" — highly motivated individuals who seek out information and undertake changes in health behaviors and practices with little urging (Gottleib and Green, 1987). However, in order to achieve overall improvements in the nation's health, attention now needs to turn to a large segment of the general population that undertakes change more slowly and for whom different strategies are needed. A broad term often used to describe this population-at-large is "hard-to-reach."

The term hard-to-reach traditionally has been used in public health to encompass the poor, minority groups, and the elderly. By its very name it assumes that these are groups that are not receiving or receptive to health information and services. The term also is used to identify populations that others perceive to be hard-to-reach; i.e., employers might identify dependents and blue-collar workers as hard-to-reach.

The use of the term hard-to-reach also implies that this population is at high risk for disease. The higher risk, often associated with behavioral factors, may or may not also be associated with access to information and services.

The term hard-to-reach was employed broadly in the study reported here to encompass members of that segment of the general adult population whose diet, exercise, and weight control behaviors place them at increased risk of certain chronic diseases and for whom that increased risk is reflected in higher rates of disease and premature mortality. Determining to what extent members of this population have sufficient information that they are able to put to use and what programs and services would be appropriate for supporting or reinforcing information needs are issues inherent in this investigation.

While the scientific evidence that links rates of mortality to potentially preventable causes of disease is essential for understanding the significance and potential of health promotion, these facts clearly are not sufficient for much of the population to adopt health promoting behaviors. It is unclear to what extent the public grasps these relationships and knows how to translate them into healthy lifestyle practices.

There is continuing discussion among scientists and educators concerning the best approaches to communicate health information to the public. Although numerous strategies have been tried, it continues to be a challenging task to influence individuals to exchange unhealthy behaviors for healthy ones.

Many theoretical frameworks have been constructed to attempt to understand and predict behavior. However, as Raymond and Wood (1989) have claimed, much of the research in the area of health behavior was completed in a "quieter and gentler time," and may not be as applicable to today's rapidly changing world. Indeed, "the laboratory of the 1990s must be the streets of America."

METHODOLOGY

Focus group research is popular in designing health promotion programs because it offers a proxy setting for the streets and living rooms of America. Qualitative research techniques such as focus groups provide a means of reaching beyond the knowledge and practices reported by quantitative data, enabling us to understand better people's perceptions and attitudes, particularly those revolving around fundamental beliefs, values, tastes, and emotions.

When such qualitiative data are combined with survey and epidemiological data, a multidimensional profile of the target audience can be constructed that will help health communicators design strategies that are appropriate and relevant. This, in turn, enhances the likelihood that the information is received and understood.

Criteria used to set the parameters for the study population were: to include those who experience a disparity compared to the general population in both health status and practices associated with the three study risk factors (diet, exercise, and weight control), who bear a significant burden of suffering, and who would be a potentially receptive audience for health information about these three risk factors relative to other behavioral and environmental risk factors. A literature review established the burden of suffering associated with poor diet, exercise, and weight control behaviors and identified the high-risk segments of the population who experience a disparity with the general population both in health status and health practices related to these three risk factors. The literature review also examined the extent to which diet, exercise, and weight control behaviors are practiced in the U.S. population, highlighting differences based on age, sex, race/ethnicity, education, and income. Chapters Two and Three of the report are based on this literature review.

Based on the literature, an operational definition of the hard-to-reach population was developed that could be used for the composition of the focus groups and the analysis of the commercial database: that is, white, black, and Hispanic men and women, ages 25 to 64, with 12 or fewer years of education, and a family income falling between the national median and the poverty level. While other minority groups are known to experience disparities in health status compared to the general population, inclusion of additional population segments for study was not permitted within the resources available for the project.

An analysis of the target population, using these demographic characteristics, helped develop a profile of this diverse group. In addition to socioeconomic indicators and other population characteristics, factors significant to designing health communication programs, such as geographic location of racial and ethnic groups, language preferences of Hispanics, and literacy levels were reviewed. Chapter Four summarizes what was learned from this analysis.

The centerpiece of the study was 24 focus groups conducted across the country with members of the study population. Participants were probed for their perceptions and beliefs about health, knowledge, attitudes, and practices with respect to the three risk factors of diet, exercise, and weight control, awareness of the association of these risk factors to chronic diseases, motivation for making changes to improve health, and receptivity to different sources and channels of health information. The results of the focus group discussions and the implications for health communication are contained in Chapter Five.

A second research task of the project was an analysis of a commercial market research database for the media habits, leisure practices, and certain psychographic characteristics of the study population. The database was the Simmons Market Research Bureau, Inc., Annual Survey of Media and Markets. Chapter Six reports the data on the media habits, civic activities, and membership in organizations of the target population.

The final chapter of this report discusses the implications of the market research for public education programs.

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CHAPTER TWO

HEALTH EFFECTS OF DIET, PHYSICAL ACTIVITY, AND WEIGHT

An unhealthy diet and sedentary lifestyle are associated with five of the top ten leading causes of death in the United States. Perhaps even more importantly, diet and exercise are known to play an important role in the development and management of conditions which are themselves risk factors: high blood pressure, high blood cholesterol, obesity, and diabetes. The relationship of these factors to the leading causes of death are illustrated in table 1. As shown, in 1987, poor diet and a lack of exercise were associated with diseases responsible for about 68 percent of deaths. The only risk factor associated with more deaths was smoking (77.5 percent) (DHHS, *Surgeon General's Report on Nutrition and Health*, 1988).

Table 1. Percent of Total Deaths and Risk Factors Associated With 10 Leading Causes of Death: United States, 1987

Cause of Death	Percent of Total Deaths	Smoking	High-Fat, Low-Fiber Diet	Sedentary Lifestyle	High Blood Pressure	Elevated Serum Cholesterol	Obesity	Diabetes	Alcohol Abuse
Heart Disease	35.7	●	●	●	●	●	●	●	●
Cancer	22.4	●	●	●			●		●
Stroke	7.0	●	●		●	●	●		
Unintentional Injury	4.4	●							●
Chronic Obstructive Lung Diseases	3.7	●							
Pneumonia and Influenza	3.2	●							
Diabetes	1.7		●	●			●	●	
Suicide	1.4								●
Chronic Liver Disease/ Cirrhosis	1.2								●
Atherosclerosis	1.1	●	●	●		●		●	
All Other Causes	18.2								

▨ Diet and exercise

☐ Risk factors controlled with diet and exercise

☐ Other risk factors

Sources: *Surgeon General's Report on Nutrition and Health*, 1988, and *Integration of Risk Factor Interventions*, 1986.

A clear policy direction in the area of diet and health has emerged with the publication of the *Surgeon General's Report on Nutrition and Health* and *Diet and Health: Implications for Reducing Chronic Disease Risk* by the National Research Council of the National Academy of Sciences. Drawing substantially from those reports, the following chapter reviews the burden of suffering associated with the three risk factors of diet, exercise, and overweight. The morbidity and mortality rates for cardiovascular diseases, cancer, and diabetes mellitus are presented, as well as the incidence and prevalence of the associated conditions of high blood pressure, high blood cholesterol, and obesity. When the data are available, those segments of the black, white, and Hispanic population whose higher rates of associated conditions place them at higher risk are identified. A limitation of the data is that most health data are presented by age, sex, and race, and do not usually include income levels. When possible, however, disparities in disease rates by income and education levels are presented.

CARDIOVASCULAR AND CEREBROVASCULAR DISEASES

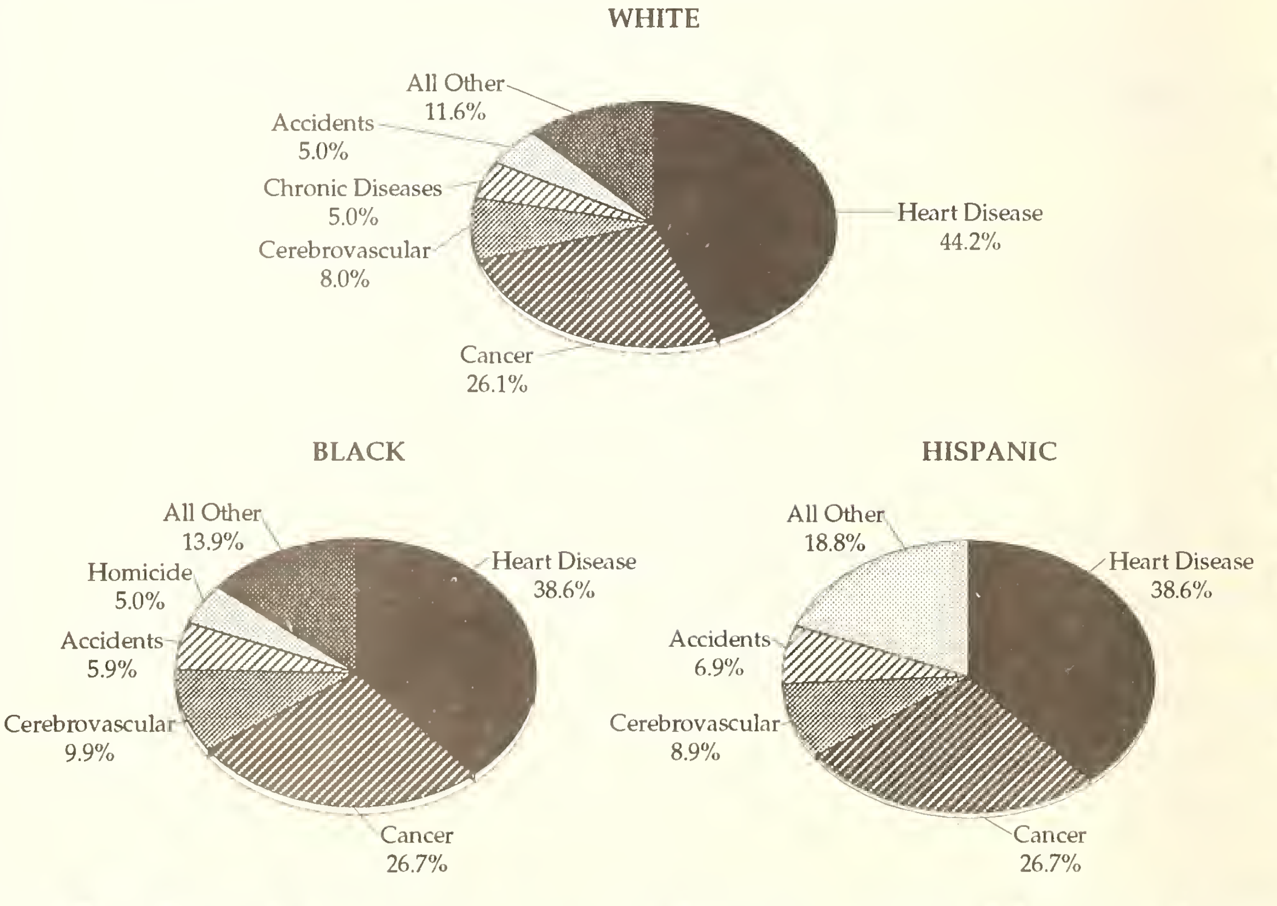
Heart disease and stroke, when ranked with other diseases, are the first and third leading causes of death (figure 1). Furthermore, hypertension and hypercholesterolemia are known to play an important role in the development of these diseases.

CORONARY HEART DISEASE

The age-adjusted death rate for heart disease, the leading cause of death, declined by 33 percent from 1970 to 1987. The decline has been greatest among white males (35 percent), followed by white females (31 percent), black females (28 percent), and finally black males (24 percent) (NCHS, 1990). Thirty percent of this decline is attributed to reductions in blood cholesterol levels by one analysis that examined the effects of changes in medical intervention and changes in lifestyle (*Surgeon General's Report*).

Despite this decline, coronary heart disease (CHD) still accounts for more deaths annually than any other disease or group of diseases. More than 1.25 million heart attacks occur each year (two-thirds

Figure 1. Causes of Death Among Adults by Race and Ethnicity: United States, 1988



occur in men), and more than 500,000 people die as a result (*Surgeon General's Report*).

Death rates for CHD in men under age 65 and in women under age 75 are higher among blacks than among whites, the reverse being true in older persons, as shown in table 2 (*Surgeon General's Report*).

Table 2. Death Rates for Coronary Heart Disease by Age, Race, and Sex: United States, 1985

(Rate per 100,000 Population*)

Age (years)	White Men	Black Men	White Women	Black Women
Total	180.8	164.9	82.9	100.8
Under 45	8.2	13.2	1.7	4.3
45-64	294.5	317.8	85.1	161.1
65-74	1,132.6	990.6	506.0	645.9
75 and over	3,071.8	2,205.0	2,010.2	1,717.5

*Age-adjusted to the U.S. population 1940

Source: *Surgeon General's Report on Nutrition and Health*, 1988.

Heart disease is the leading cause of death for Hispanics as it is with blacks and whites. However, the Secretary's Task Force on Black and Minority Health (1985) reported lower rates of CHD in the Hispanic population than in non-Hispanic whites, although the data are limited. Regional studies of Mexican Americans and Puerto Ricans suggest that the mortality rate from CHD is lower for these Hispanic groups than for whites (COSSMHO, 1988). Nevertheless, cardiovascular disease continues to be a serious problem among the Hispanic population: Deaths from cerebrovascular and coronary heart diseases account for nearly half of all Hispanic deaths. The mortality rate due to cardiovascular disease is slightly higher among Hispanic men than among Hispanic women (Secretary's Task Force, 1985).

RISK FACTORS

According to *Diet and Health* , a large body of evidence indicates that the incidence of CHD is associated with three major risk factors: high blood cholesterol, high blood pressure, and cigarette smoking. Other major risk factors include a low HDL-cholesterol concentration, diabetes mellitus, and a family history of early (premature) CHD.

Obesity, physical inactivity, and personality type also are associated with increased risk, but the associations are weaker and the evidence is less complete.

Diet

The principal nutritional factors identified with high blood cholesterol and the development of CHD are dietary fat, particularly saturated fatty acids, cholesterol, and energy imbalance leading to obesity. Other dietary constituents, such as fiber and alcohol, may interact with these factors in ways that are not clearly understood. Based on extensive scientific evidence, the *Surgeon General's Report* recommends an overall decrease in dietary fat intake by the general public from the present level of about 37 percent of total calories and a decrease in saturated fat from the present level of about 13 percent of total calories. Reductions in the amount of cholesterol consumed by the general public are also recommended, along with an overall decrease in the prevalence and severity of overweight in the population through both a decrease in caloric intake and an increase in caloric expenditure.

Physical activity

The scientific evidence suggests an indirect and possibly direct role of physical activity in reducing risk of fatal CHD. Evidence on the level of physical activity required to reduce risk is conflicting (*Diet and Health*). There is growing evidence that lower levels of physical activity than previously recommended are also beneficial (Harris, S.S.; Caspersen, C.J.; de Friese, G.H.; and Estes, E.H., 1989). One analysis by the Centers for Disease Control (CDC) concludes that the lack of physical activity is as much of a risk factor for CHD as are high blood cholesterol, high blood pressure, or cigarette smoking (CDC, 1987).

Body weight

Maintaining a healthy weight is an important factor in preventing CHD. Based on findings from the Framingham Study, researchers estimate that the incidence of CHD would be 25 percent less than its current rate if Americans achieved and maintained their optimal weight (Brownell and Foreyt, 1986).

There is some evidence that repeated cycles of weight gain and loss may also be a risk factor for CHD mortality. People with central fat distribution are at greater risk for CHD than people with peripheral fat distribution (*Diet and Health*).

Other risk factors

According to *Diet and Health,* ethnic and racial differences in CHD deaths within countries are closely associated with socioeconomic levels. Generally, higher socioeconomic status (SES) groups tend to be nonsmokers and have healthier patterns of eating, lower blood cholesterol levels, leaner body mass index, and greater levels of physical activity.

STROKE

Over two million strokes are recorded each year in the United States, and approximately 7 percent of all adult deaths are attributable to stroke (*Surgeon General's Report;* NCHS, 1988). Although stroke mortality rates have declined dramatically in recent years, certain segments of the population experience excess rates of mortality.

The mortality rate from strokes among blacks is almost twice that of whites as shown in table 3. In particular, younger blacks, ages 25 to 44, are at a disproportionately greater risk of strokes than are whites of the same age. Years of potential life lost per 1,000 population under 65 years of age for stroke was almost three times greater among black than white persons (NCHS, 1990).

There does not appear to be an excess stroke mortality rate among Hispanics compared with whites in southern Texas. There may be a slight excess of stroke mortality among Puerto Ricans in New York, especially in the younger age groups, compared with whites (DHHS, 1989).

RISK FACTORS

High blood pressure is the most consistent characteristic associated with the risk of stroke, but other contributors include a high- fat diet, serum lipids, and smoking (*Diet and Health*).

HIGH BLOOD PRESSURE

Almost 58 million Americans have been found to have elevated blood pressure (>140/90) or have reported taking antihypertensive drugs prescribed by a physician. About 39 million of these people are under the age of 65.

Prevalence of hypertension increases dramatically with age, from a low of 2 percent for white females ages 18 through 24, to a high of 83 percent for black females 65 through 74 years of age (*Surgeon General's Report*). A consistent finding among industrialized societies is a higher mean blood pressure and higher prevalence of hypertension among men than women from adolescence through age 45. After age 45, mean blood pressure values are higher in women than men. The point at which the average blood pressure of women crosses that of men is about five years earlier for blacks than for whites (*Diet and Health*). Blacks have a higher prevalence of high blood pressure (38 percent) than whites (29 percent) (*Surgeon General's Report*).

Data from the Framingham Heart Study show that people with high blood pressure have three to four times the risk of developing CHD and as much as seven times the risk of developing a stroke as do those with normal blood pressures (DHHS, 1989).

Control of hypertension appears to be more of a problem for men than for women in black, white, and Hispanic populations (DHHS, 1989).

RISK FACTORS

The behavioral risk factors of diet, exercise, and weight control associated with cardiovascular diseases are also associated with high blood pressure.

Body weight

Weight loss is recommended by the *Surgeon General's Report* for all overweight persons, particularly those with hypertension. Research suggests that control of obesity would

Table 3. Death Rates for Cerebrovascular Disease by Age, Race, and Sex: United States, 1987
(Rate per 100,000 Population)

Age (years)	White Men	Black Men	White Women	Black Women
Total, age-adjusted	30.3	57.1	26.3	46.7
25-34	1.8	5.4	1.7	5.8
35-44	5.4	27.1	5.1	17.5
45-54	16.7	67.5	14.5	47.2
55-64	50.7	143.9	38.7	108.7
65-74	165.4	318.5	129.3	261.2
75-84	601.2	777.6	524.0	685.7
85 and over	1,663.1	1,339.1	1,807.8	1,480.9

Source: NCHS, *Health United States, 1989.*

eliminate hypertension in 48 percent of whites and 28 percent of blacks. Even when weight loss does not reduce blood pressure to normal, health risks may be reduced, and smaller doses of antihypertensive medication may be needed as a result.

Diet

In addition to obesity, dietary factors that clearly contribute to high blood pressure include excessive intake of sodium and alcohol.

Physical activity

The evidence of a direct association of physical activity with reduced blood pressure is scant, but it is clear that caloric expenditure through regular physical activity is a critical component of weight control (*Surgeon General's Report; Diet and Health*).

HIGH BLOOD CHOLESTEROL

The National Cholesterol Education Program (NCEP), initiated in 1985 by the National Heart, Lung, and Blood Institute (NHLBI), defines high blood cholesterol as total cholesterol >240 mg/dL and LDL cholesterol >160 mg/dL. From 1976 through 1980, 29 percent of women and 25 percent of men ages 20 through 74 had blood cholesterol levels of 240 mg/dL or greater. The prevalence of high blood cholesterol among blacks and Hispanics is lower than the prevalence overall (DHHS, 1990).

RISK FACTORS

A diet high in saturated fats and the incumbent excess in body weight are most highly correlated with elevated levels of blood cholesterol (*Surgeon General's Report; Diet and Health*).

CANCER

Cancer is the second leading cause of death in the United States, contributing to almost one-fourth of the adult deaths in 1989. Lung cancer is the leading cause of cancer death for both men and women. Colorectal cancer is the second among men and the third among women (NCHS, 1990).

An analysis by Christenson and Baquet (1989) of cancer incidence, mortality, and survival shows that there is a consistent increase in the incidence rate from younger to older age groups when combining all races, both sexes, and all cancer sites. The pattern for increased mortality and lower 5-year survival rates is consistent with that observed for incidence.

They also examined the relationship between cancer and SES and race/ethnicity. The data show a relationship between lower educational level, lower family income, and higher age-adjusted cancer rates when all cancer sites are combined for both blacks and whites (see table 4). A similar pattern appears for lower survival rates. Persons with more years of completed education and increased family income experience less cancer incidence and higher survival rates for all sites combined.

Average annual age-adjusted cancer incidence rates for all sites and selected primary sites from the analysis are reported in table 5 for whites, blacks, and Hispanics. For those cancer sites reported, blacks have the greatest incidence for all sites combined (390.0) than any other group, and greater incidence than whites for all selected sites except the bladder, colon plus rectum, ovary, and breast (for all ages and for women age 40 and over). Whites have the next highest reported cancer incidence (354.5) and Hispanics the next (243.2).

While there is variation by site, blacks have the highest cancer mortality rates (211.0) for all sites combined, followed by whites (166.2). The rate for Hispanics in New Mexico, while not directly comparable since no national data are available, is 127.3, compared to a 172.5 rate for whites. Five-year survival also varies by cancer site, but whites have the highest overall rates.

Table 4. Age-Adjusted Cancer Incidence Rates for Whites and Blacks Ages 25 and Over, All Cancer Sites Combined (1978-82 Diagnosis)
(Rate per 100,000 Population)

Educational Attainment	White	Black
Under 12 years	393.8	385.6
High school	351.3	358.6
Some college	342.0	339.0
College graduate	338.2	309.1
Total	350.1	365.2
Family Income	**White**	**Black**
Under $15,000	420.6	382.6
$15,000-24,999	357.6	352.8
$25,000-29,999	344.0	320.8
$30,000+	333.5	319.3
Total	350.1	365.2

Source: Christenson and Baquet, 1989

Table 5. Average Annual Age-Adjusted Cancer Incidence Rates by Primary Site and Racial/Ethnic Group: SEER Program: 1981-85

(Rate per 100,000 Population)

Primary Site	White	Black	Hispanic
All Sites	354.5	390.2	243.2
Bladder	17.3	9.7	6.2
Breast, female	95.6	80.0	51.2
under 40 years of age	8.9	11.2	7.6
40 years of age and over	247.5	200.6	127.7
Cervix Uteri	7.9	16.8	13.5
Colon/Rectum	51.0	50.0	28.8
Colon	36.1	38.3	18.6
Rectum	14.9	11.6	10.1
Corpus Uteri	24.2	14.4	11.6
Esophagus	3.0	11.5	2.0
Larynx	4.7	7.0	2.8
Lung	54.5	74.1	23.4
Male	82.7	126.9	32.1
Female	33.8	34.8	15.9
Multiple Myeloma	3.7	8.5	3.0
Ovary	14.1	10.1	11.0
Pancreas	9.3	14.0	10.5
Prostate	81.3	129.5	77.3
Stomach	7.5	13.9	13.6

Note: Cancer incidence data for Hispanics come from New Mexico only.

Source: SEER Program, 1981-85 (Christenson and Baquet, 1989)

RISK FACTORS

A wide range of factors are linked to cancer, with the leading behavioral risk factors being tobacco and diet.

Diet

Although estimates of the percentage of cancer in the United States attributable at least in part to diet range from 10 to 70 percent, a best estimate is 35 percent (*Surgeon General's Report*). Dietary fat has been found to promote cancer, increasing the risk of cancers of the breast, colon, prostate, ovaries, rectum, and endometrium. The National Cancer Institute dietary guidelines to reduce cancer risk are: reduce fat intake to 30 percent or less of calories; increase fiber intake to 20 to 30 grams daily, with an upper limit of 35 grams; include a variety of vegetables and fruits in the daily diet; avoid obesity; consume alcoholic beverages in moderation, if at all; and minimize consumption of salt-cured, salt-pickled, and smoked foods (Butrum, R.R.; Clifford, C.K.; and Lanza, E., 1988).

Physical activity

The relationship between exercise and cancer needs further investigation before conclusions can be drawn. However, a few studies have demonstrated a link between the two. For example, increased cancer risk has been noted in recreationally inactive individuals, compared with active ones, and increased risk has also been shown in occupationally inactive men versus those who are more active (Gerhardsson, M.; Norell, S.E.; Kiviranta, H.; Pedersen, N.L.; and Ahlbom, A., 1986). Most of the data that suggest a protective role from physical activity is linked to colon cancer.

Body weight

The data from several studies support an association between overweight and cancer. Achieving and maintaining desirable weight is one of the dietary recommendations for lowering cancer risk, particularly for cancers of the breast, colon, rectum, uterus, and kidney (*Surgeon General's Report*). In addition to cancer incidence rates, cancer mortality rates have also been associated with weight. Those with above average body weight have a higher mortality rate for several types of cancer, including cancers of the endometrium, gallbladder, cervix, and breast (*Diet and Health, Surgeon General's Report*).

DIABETES MELLITUS

Diabetes mellitus, often referred to simply as diabetes, is the seventh leading cause of death in the United States, attributable to 36,000 annual deaths (*Surgeon General's Report*). There are two types of diabetes: Type I and Type II. Type I diabetes, or insulin-dependent-diabetes mellitus, accounts for about 10 percent of all diabetic cases. This discussion focuses on Type II diabetes, or non-insulin-dependent diabetes mellitus (NIDDM), which accounts for 90 percent of all diabetic cases and for which monitoring behavioral risk factors plays a major role in its onset and control (*Surgeon General's Report*).

Based on results of the second National Health and Nutrition Examination Survey (NHANES II), it is estimated that only about half of the estimated 11 million Americans with NIDDM are aware that they have the disease. Women are 1.4 times more likely to develop NIDDM than are men, and are more likely to be diabetic at younger ages (Secretary's Task Force, 1985; Kovar, M.G. et al.; 1987).

Genetic, environmental, and lifestyle factors can place a person at increased risk for developing NIDDM. Table 6 shows the rate of disease by age, sex, and race. The prevalence rates for NIDDM, as well as mortality, rise with age (*Surgeon General's Report*; Kovar, et al., 1987). NIDDM rates are also higher among people with relatively lower SES and in rural areas (*Diet and Health*).

Rates of NIDDM among Hispanics and blacks appear to be higher than among whites (*Diet and Health*). The prevalence of NIDDM is 33 percent higher and the mortality rate is 50 percent higher in black populations, compared to white populations (Kovar et al., 1987; *Surgeon General's Report*). Furthermore, several studies have indicated that the majority of blacks who are diabetic are overweight women and that black women have higher incidence and death rates attributable to diabetes than do black men (Secretary's Task Force, 1985).

Table 6. Prevalence of Type II Diabetes by Age, Sex, and Race: United States, 1983-85
(Rate per 1,000 Population)

All ages	25.6
Under 18 years	1.7
18-44	9.0
45-64	54.4
65-74	97.9
75 and over	91.8
Male	22.3
Female	28.7
White	24.3
Black	37.1

Note: Prevalence refers to the average annual number of diabetes conditions reported.

Source: NCHS, *Advance Data* No. 155, 1988.

For Hispanics, NIDDM is most problematic for Puerto Ricans and Mexican Americans, especially those from low socioeconomic families (COSSMHO, 1988; Secretary's Task Force, 1985). Data from the Hispanic Health and Nutrition Examination Survey (HHANES), conducted from 1982 to 1984, indicated that the prevalence of diabetes was two to three times greater in Mexican Americans and Puerto Ricans than in non-Hispanic whites, while in Cubans the prevalence was similar to that in non-Hispanic whites. In the group ages 45 to 74 years, the prevalence of diabetes was extremely high in Mexican Americans (23.9 percent) and Puerto Ricans (26.1 percent), compared to Cubans (15.8 percent) and non-Hispanic whites (12.0 percent) (NCHS, *Anthropometric Data...for Hispanics*, 1989).

Many of the adverse health effects of diabetes derive from its complications that include heart disease and stroke, kidney disease, blindness, and amputations. Half of the people with diabetes suffer serious limitations of activity, and one-third are unable to work regularly (*Surgeon General's Report*).

RISK FACTORS

While there is a strong biological influence on the risk for NIDDM, excess body weight is a strong behavioral risk factor for the onset of the disease.

Body weight

It is estimated that about 80 percent of all NIDDM diabetics are overweight (NIH, 1986). The risk for NIDDM increases as body weight increases, and even moderate excess weight can initiate the disease. Experts recommend the maintenance of ideal weight as a critical preventive measure against diabetes. For those with a family history of NIDDM, being overweight is especially risky. The onset of NIDDM can be delayed or prevented in individuals with a family history if they avoid or eliminate obesity (NIH, 1986).

Exercise

Exercise also appears to play a role in the management of diabetes, in that it seems to influence glucose intolerance positively by preventing the rise in blood glucose level that follows consumption of carbohydrates and by increasing insulin sensitivity (Raurama, 1984; NIH, 1986; CDC, 1988).

OBESITY

Obesity refers to an excess of body fat. Because degree of fatness is a continuum, any definition of obesity must be arbitrary and related to a standard of normality. Despite the variation in definitions, it is agreed that obesity is one of the most prevalent diet-related problems in the United States. Its high prevalence — about one-fourth of adults are overweight and nearly one-tenth are severely overweight — together with its role as a risk factor for diabetes, hypertension, coronary artery disease, stroke, gallbladder disease, and some types of cancer, suggest that reductions in excess weight would significantly improve the Nation's health (*Surgeon General's Report*). In addition to total body fat, another factor associated with the risk of chronic diseases is the distribution of fat on the abdomen and trunk or peripherally on the arms and legs. At present, an increase in the amount of fat in the abdomen is associated with an increased risk of disease. Mortality risk increases as the severity of obesity increases, and even minor decreases in body weight can have beneficial health effects (*Diet and Health*).

According to the definition of overweight used in the National Health and Nutrition Examination Survey II (NHANES II), 25.6 percent of Americans ages 20 to 74 years were overweight, with the highest rates observed among the poor and ethnic minority groups. Age-adjusted rates for blacks (36.6 percent) exceeded those for whites (24.6 percent), and those for females of all races (26.7 percent) exceeded those for males (24.4 percent) (*Surgeon General's Report*).

Table 7 summarizes the extent of the U.S. adult population that is overweight, according to sex and racial or ethnic grouping. The overweight rate for men varied by race/ethnicity, but not substantially: Mexican Americans showed the smallest proportion of overweight men (19.6 percent) and Cubans the largest (29.4). Black women, however, had an overweight rate almost twice that of white women, 45.1 percent compared to 24.6 percent. The rates for Hispanic women fell between those for blacks and whites (*Surgeon General's Report; Anthropometric Data...for Hispanics*).

The peak overweight rates for men occur from ages 35 to 64, whereas rates for women continue to increase throughout the ages in which they are measured. The percent of adults classified as overweight increases from a low of 5.5 percent among black men ages 20 to 24 to a high of 61.2 percent among black women ages 45 to 54 (*Surgeon General's Report*).

Table 7. Prevalence of Overweight by Race, Ethnicity, and Sex: United States, 1976-80 and 1982-84

(In percent)

	Male	Female
White	24.4	24.6
Black	26.3	45.1
Mexican American	19.6	39.1
Cuban	29.4	34.1
Puerto Rican	25.2	37.3

Source: NHANES II (1987-80) and HHANES (1982-84)

RISK FACTORS

The interplay of familial, environmental, and behavioral factors in the etiology of obesity is complex. Factors that are considered to be contributors are: 1) heredity, 2) primary overeating, 3) altered metabolism of adipose tissue, 4) defective or decreased thermogenesis, 5) decreased physical activity, and 6) certain prescribed medications. While it may not be possible to specify the relative importance of either energy intake (i.e., diet) or energy expenditure (i.e., physical activity) in the development of obesity, these are two factors over which individuals have some personal influence. A combination of diet and exercise are clearly recommended to lose weight (*Surgeon General's Report; Diet and Health*).

Diet

Because fat contains more than twice the caloric value per gram of either protein or carbohydrate, the *Surgeon General's Report* recommends that the general public would benefit from reduced fat intake. In addition, because sugar and alcohol provide calories from carbohydrates but no other nutrients, individuals seeking to attain and maintain a healthy body weight are advised to use these substances sparingly.

Physical activity

Evidence indicates that exercise burns calories, controls appetite, increases the proportion of lean to fat body mass, and, consequently, raises the metabolic rate. Therefore, according to the *Surgeon General's Report*, increased levels of physical activity are important for attaining healthy body weights among the general population.

SUMMARY

Despite the many improvements in the health status of the American public, it is clear from the discussion above that some population groups suffer disproportionately from disease and early death. Minorities and low SES groups generally have higher rates of disease and higher rates of death than the general population. However, the current science base is not adequate to specify the relative contributions of race, ethnicity, and socioeconomic status to disease risk.

In this discussion, lifestyle practices such as dietary patterns, exercise habits, and weight control have been highlighted because of their relevance to health communication programs. The consumption of dietary fat, particularly saturated fat, has been found to promote coronary heart disease, stroke, and some cancers, and play a role in the control of diabetes, high blood pressure, and high blood cholesterol. Levels of physical activity and sedentary lifestyles are associated with CHD, stroke, the management of diabetes, and possibly cancer (although further research is needed to determine whether there is a direct association). Furthermore, these behavioral factors are indirectly associated with high blood pressure and high blood cholesterol. Weight control resulting from the proper balance of caloric intake and expenditure has a preventive, risk-reducing influence on each of the chronic diseases and conditions cited.

Based on the influence that the three behavioral risk factors have on health status, either independently or in association with environmental and social factors, it can be expected that there are also disparities in health practices that parallel disparities identified in health outcomes. The next chapter will examine the extent of knowledge and reported practices of the general population in the areas of diet, exercise, and weight. When possible, differences based on age, sex, race/ethnicity, education, income, and other factors will be identified.

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CHAPTER THREE

DIET, EXERCISE, AND WEIGHT CONTROL BEHAVIOR

The behavioral risk factors of diet, exercise, and weight control are linked in their health effects but not necessarily in their practice. Commercials urging us to buy athletic shoes for every sport and high priced, high fiber breakfast cereals create the impression that the American public is obsessed with health and fitness and willing to pay for its benefits. However, closer examination of the data on diet and exercise practices shows that large segments of the American public may be buying the products but not much more.

This chapter examines the trends in the practice of healthy habits; public knowledge of various aspects of the three topics; and, to the extent that data are available, attitudes and beliefs about health and diet, exercise, and weight control. The limited data available about the integration of behavioral risk factors is also reviewed. The variation in knowledge and practices by age, race/ethnicity, and sex is given when possible in order to help identify those segments of the population whose health practices place them at higher risk for disease.

DIETARY BEHAVIOR

Every day Americans consume foods that may increase their risk of developing life-threatening diseases. As the previous chapter has shown, high consumption of dietary fat, especially saturated fat, coupled with low consumption of fiber and complex carbohydrates, has been associated with several major diseases. This section of the report summarizes national recommendations regarding dietary practices, trends in dietary behavior, and knowledge and attitudes about diet.

As stated earlier, the scientific evidence about the relationship between diet and chronic diseases has been reviewed in two major reports — the *Surgeon General's Report on Nutrition and Health* and *Diet and Health*. Both reports made dietary recommendations for the public stemming from their comprehensive reviews of the scientific evidence. In addition, other groups, such as the American Heart Association and the American Cancer Society, have issued dietary recommendations.

The recommendations from the various sources parallel each other to a great extent. The recommendations made by scientific panels convened by governmental and voluntary agencies from 1977 to 1989 are summarized in table 8. As the table shows, the scientific consensus points to the importance of a low fat diet which can best be achieved through an increase in the intake of fruits, vegetables, grains, and other foods high in complex carbohydrates and fiber and a decrease in the intake of foods high in fat, especially saturated fats. In addition, sugar, alcohol, and salt consumption should be limited. The panels also concur on the importance of maintaining a healthy weight as a means of controlling risks for chronic diseases.

TRENDS IN DIETARY BEHAVIOR

The National Research Council reports in *Diet and Health* (1989) that more educated and higher income people seem to be changing their diets to follow public health recommendations. Yet, national surveys and other studies report that total fat and saturated fat intake remain higher than the recommended levels, indicating that most Americans have not adopted these eating habits. In addition, fruits and vegetables overall, specifically cruciferous vegetables and carotenoid vegetables thought to play a role in reducing cancer risk, are consumed in relatively low amounts. White bread remains more popular than the higher fiber grain breads, and baked products containing high amounts of sugar and fat are commonly consumed (*Diet and Health*). Additional data pertaining to American compliance with dietary recommendations are presented in table 9.

Table 8. A Comparison of Dietary Guidelines Issued by U.S. Scientific Organizations and Government Agencies

Recommendations	U.S. Senate Select Committee on Nutrition and Human Needs, 1977	U.S. Departments of Agriculture and Health and Human Services, 1980, 1985	National Academy of Sciences, 1982	American Cancer Society, 1984
Variety		*Eat a variety of foods.*		
Fat	*Reduce total fat to 27-33 percent of calories; and cholesterol to 250-350 mg per day.*	*Avoid too much fat and cholesterol.*	*Reduce fat intake to 30 percent of calories.*	*Cut down on total fat intake.*
Carbohydrates/ Fiber	*Increase complex carbohydrates and naturally occurring sugars to 45-51 percent of calories; increase fiber.*	*Eat foods with adequate starch and fiber.*		
Fruits/Vegetables/ Grains			*Include fruits, vegetables, and whole grain cereal products in the daily diet.*	*Eat more high-fiber foods such as whole-grain cereals, fruits, and vegetables; include foods rich in vitamins A and C and cruciferous vegetables.*
Sugar		*Avoid too much sugar.*		
Protein				
Obesity	*Avoid overweight.*	*Maintain desirable weight.*		*Avoid obesity.*
Alcohol	*Keep alcohol intake moderate.*	*If you drink alcoholic beverages, do so in moderation.*	*If alcoholic beverages are consumed, they should be consumed in moderation.*	*Be moderate in consumption of alcoholic beverages.*
Salt/Sodium	*Reduce salt intake to 4-6 gm per day.*	*Avoid too much sodium.*	*Minimize consumption of salt-cured, salt-pickled, and smoked foods.*	*Be moderate in consumption of salt-cured, smoked, and nitrate-cured foods.*
Fluoride				
Calcium				
Iron				
Supplements				

(Continued on the next page.)

Table 8. A Comparison of Dietary Guidelines Issued by U.S. Scientific Organizations and Government Agencies (continued)

Recommendations	American Heart Association, 1988	National Cancer Institute, 1988	U.S. Surgeon General, 1988	National Academy of Sciences, 1989
Variety	*A variety of foods should be consumed.*			
Fat	*Reduce total fat to 30 percent of calories; saturates to less than 10 percent of calories; polyunsaturates to no more than 10 percent of calories; and cholesterol to 300 mg per day.*	*Reduce fat intake to 30 percent or less of calories.*	*Reduce fat, especially saturated fat, and cholesterol.*	*Reduce total fat intake to 30 percent or less of calories; saturated fat to less than 10 percent of calories; cholesterol to less than 300 mg per day.*
Carbohydrates/ Fiber	*Carbohydrate intake should constitute 50 percent or more of calories; emphasis on complex carbohydrates.*	*Increase fiber intake to 20-30 g daily, with an upper limit of 35 gm.*	*Increase complex carbohydrates and fiber.*	*Carbohydrates should total more than 55 percent of calories.*
Fruits/Vegetables/ Grains		*Include a variety of vegetables and fruits in the daily diet.*		*Every day eat 5 or more 1/2-cup servings of fruits and vegetables; increase starch and complex carbohydrate intake to 6 or more servings of breads, cereals, grains.*
Sugar			*Those vulnerable to caries should limit consumption of high-sugar foods.*	
Protein	*Protein intake should provide the remainder of calories.*			*Maintain moderate protein intake.*
Obesity	*Total calories should be sufficient to maintain an individual's recommended body weight.*	*Avoid obesity.*	*Achieve and maintain desirable body weight.*	*Balance food intake and physical activity to maintain appropriate body weight.*
Alcohol	*Alcohol consumption should not exceed 1-2 oz per day of ethanol.*	*Consume alcoholic beverages in moderation, if at all.*	*Consume alcohol only in moderation (no more than 2 drinks a day).*	*We do not recommend alcoholic beverages; if you drink, consume no more than 1 oz of ethanol daily.*
Salt/Sodium	*Sodium intake should not exceed 3 gm per day.*	*Minimize consumption of salt-cured, salt-pickled, and smoked foods.*	*Reduce sodium intake.*	*Limit salt consumption to 6 g per day.*
Fluoride			*Water supplies should contain adequate fluoride levels.*	*Maintain optimal fluoride intake.*
Calcium			*Adolescent girls and adult women should increase consumption of calcium-rich foods.*	*Maintain adequate calcium intake.*
Iron			*Children, adolescents, and women of childbearing age should consume iron-rich foods.*	
Supplements				*Avoid taking dietary supplements in excess of daily RDA.*

Table 9. American Dietary Practices

Recommendation*	Daily Practice
Reduce fat intake to 30% or less of calories.	37% for women 36% for men[1]
Consume less than 300 mg of dietary cholesterol.	435 mg for men 304 mg for women[1]
Carbohydrates should be 55% or more of calories.	46% for women 45% for men[1]
Eat 20-30 grams of fiber daily.**	18 grams for women 12 grams for men[1]
Eat 5 or more servings of fruits and vegetables daily.	52% eat one vegetable other than potato or salad 58% eat any fruit[2]
Eat 6 or more servings of breads, grains, and cereals daily.	Data not available

*Recommendations from NRC *Diet and Health* unless noted.
**National Cancer Insititute, 1988.

Sources: [1]CSFII, 1985
[2]Block and Lanza, 1987

DIETARY FAT CONSUMPTION

Despite public health recommendations to lower dietary fat intake to 30 percent or less of total calories (*Diet and Health*), a comparison of USDA surveys conducted in 1977 and 1985 found that the total fat intake for women only decreased from 41 percent to an average of 37 percent of calories. There was, however, a shift in dietary source of fat. From 1977 to 1985, some women lowered their whole milk consumption and switched to low-fat or skim milk. The change was greater among higher-income females, one-half to two-thirds of whom reported drinking low-fat or skim milk. Only one-third of low-income females reported consuming low-fat or skim milk products. Consumption of meat as a single item also decreased. However, fat intake increased from sources such as cheese, cream desserts, salad dressings, and table fats (USDA, 1985). Overall, only 12 percent of women had levels of fat intake consistent with the recommended fat intake of 30 percent or less of total caloric energy. Only 10 percent of women stayed within the recommended saturated fat limit of 10 percent or less of total caloric intake (Harris and Welsh, 1989).

According to the USDA data, from 1977 to 1985 dietary fat intake also decreased for men from 41 percent of total calories to 36 percent of total calories. As dietary fat intake decreased, carbohydrate consumption increased from 40 percent of total calories to 45 percent of total calories. These differences can be attributed to dietary changes such as decreased consumption of whole milk, beef, eggs, and sweets. Other notable dietary changes are the increased intake of low-fat or skim milk; fish and shellfish; legumes, nuts, and seeds; and grain mixtures (USDA, 1985).

DIETARY CHOLESTEROL CONSUMPTION

Diet and Health encourages Americans to consume less than 300 milligrams of dietary cholesterol per day. According to the 1985 USDA data, the dietary cholesterol consumption levels were higher for males (435 mg) than for females (304 mg). Sixty-two percent of women were found to be in adherence with the 300 milligrams dietary cholesterol guideline (Sims, 1988). Dietary cholesterol consumption was higher among black males and black females, compared to their white counterparts. In another study, the analysis of 24-hour dietary recall data from the NHANES II survey by Block, Rosenberger, and Patterson (1988) found that the dietary cholesterol intake was 302 milligrams for black females, compared to 271 milligrams for white females. A corresponding difference was found among males (485 milligrams for black males and 440 milligrams for white males). Black males ages 19 to 24 years and 45 to 54 years reported dietary cholesterol consumption levels of greater than 525 milligrams, an amount significantly higher than the recommended intake of 300 milligrams or less.

CARBOHYDRATE CONSUMPTION

The components that constitute carbohydrates are starch, sugar, and fiber. The amount of carbohydrates available in the food supply decreased from 493 grams per capita per day during the period from 1909-1913 to 391 grams in 1985. A significant change occurred in the proportion of total carbohydrates available from starches versus sugars. In 1909-1913, the carbohydrate food supply was comprised of two-thirds starch and one-third sugar. In contrast, the 1980 carbohydrate food supply consisted of slightly more sugars than starches. *Diet and Health* explains that the change is attributable to a decrease in use of grain products and potatoes, and an increase in use of refined sugars, syrups, and other sweeteners. *Diet and Health* guidelines recommended increasing carbohydrate intake to at least 55 percent of total calories consumed. In 1985, USDA data showed carbohydrate intake for men and women as 45 percent and 46 percent, respectively, of total caloric intake.

DIETARY FIBER CONSUMPTION

According to the National Cancer Institute (NCI), Americans should increase their dietary fiber intake to 20 to 30 grams per day. *Diet and Health* reports that few data exist regarding dietary fiber in the food supply or the amount of fiber consumed by Americans. According to USDA data (1985), dietary fiber intake was 18 grams for men and 12 grams for women. In her analysis of the USDA data, Sims (1988) found that only about 5 percent of women consumed the recommended amount of fiber.

FRUIT AND VEGETABLE CONSUMPTION

Diet and Health recommends that Americans eat five or more servings of fruits and vegetables daily, especially citrus fruits and green and yellow vegetables. However, according to Block and Patterson (1988), on any given day, only 51 percent of Americans eat even one vegetable other than potato or salad and only 59 percent eat fruit.

According to USDA data (1985), the mean intake of fruits and vegetables by women declined by 8 percent from 1977 to 1985. For men, the mean intake of fruits and vegetables increased by 11 percent and 3 percent, respectively. An increase in the consumption of citrus fruits and juices accounted for the notable increase in total fruit consumption by males.

Consumption of fruits and vegetables containing nutrients thought to be important to cancer prevention is similarly low. The analysis of 24-hour dietary recall data from NHANES II by Block and Patterson showed that only 18 percent of respondents reported eating at least one cruciferous vegetable. Seventy-nine percent of the respondents reported eating no fruit or vegetable high in Vitamin A, and 72 percent reported eating no fruit or vegetable high in Vitamin C. Only about 23 percent of the respondents ages 30 to 54 years reported eating fruits or vegetables high in Vitamin A and about 30 percent reported eating fruits or vegetables high in Vitamin C. A higher percentage of blacks than whites reported eating fruits or vegetables high in these two vitamins and cruciferous vegetables. According to the self-reported data, consumption of fruits and vegetables increased as income level increased, and vegetable consumption increased with age.

SOCIETAL CHANGES INFLUENCE EATING HABITS

What and how we eat has changed dramatically in the last 50 or 60 years. In 1928, for example, grocery stores contained about 867 familiar agricultural products. In 1983, that had increased to about 16,000 items. In 1988, shoppers were able to choose from over 24,000 items. The increase is primarily from processed and convenience food items (NCI, 1987).

Social and demographic trends also influence eating. Although just a sampling, the impact of the following trends on how and what we eat is clear.

- Sixty-five percent of women with children work outside the home (NCI, Hispanic Communication Plan, 1988).
- Convenience stores rival supermarkets for food shopping (ODPHP, 1990).
- Only one-third of homemakers prepare food from scratch more than once a week (Hispanic Communication Plan).

A 15-year Pillsbury Company study called "What's Cookin'?: A Study of Trends in American Eating Behavior" tracked actual eating behaviors of 1,000 American households through food diaries and found that only 20 percent of those consumers followed the dietary recommendations set forth by Federal health agencies. These "careful cooks" tended to be older, well-educated, and members of high income brackets (Quirk's Market Research Review, 1988).

Consumption of fast food high in saturated fat was frequently cited by blue-collar participants in focus groups conducted by the Henry J. Kaiser Family Foundation (Advertising Council, 1988). Whites, blacks, and Hispanics were represented in the groups. According to the focus group respondents, fatty foods, such as fried foods, lunch meats, cheese, and fast foods, are a main part of their diet. The primary reason given by those group participants for eating fast food was that it is convenient and inexpensive. These consumers also believed that health food is expensive and requires too much time to prepare. They did not think about what they ate as long as it is convenient, inexpensive, and tasty. Most of the participants agreed that tasty foods (usually high in fat) are fast, cheap, easy to get, and satisfying (Advertising Council, 1988).

KNOWLEDGE REGARDING DIETARY ISSUES

Public knowledge about the relationship of diet and disease is in many cases quite good, but the depth of nutritional knowledge is limited and the ability to translate knowledge into action is unevenly distributed. A recent survey conducted by Gallup for the International Food Information Council (IFIC) and the American Dietetic Association (ADA) found that 52 percent of adults reported increasing consumption of oat bran and 48 percent said they were increasing use of vitamin supplements. Yet when asked if they were increasing anything else in their diet due to health concerns, only eight percent reported eating more vegetables and only six percent said they were consuming more fruits or fruit juices (IFIC and ADA, 1990).

ABOUT DIETARY FAT AND CHOLESTEROL

The Health and Diet Surveys conducted by the Food and Drug Administration (FDA) and the National Heart, Lung, and Blood Institute (NHLBI) in December 1983 and in the spring of 1986 found that over 70 percent of respondents knew that eating fewer high-fat and high-cholesterol foods, and lowering high blood cholesterol levels have a "large" impact on preventing heart disease (Schucker et al., 1987).

Beyond this finding, nutritional knowledge is less impressive. In the 1986 FDA/NHLBI survey, while many correctly reported some specific ways to lower cholesterol, others incorrectly reported means, such as ingesting vitamins (18 percent), as effective ways to control blood cholesterol (Schucker et al., 1987).

Many consumers were also confused when asked to explain the difference among the dietary fats. In 1986, as in 1983, only 11 percent of the respondents knew that "hydrogenation" made a fat more saturated. Twenty-seven percent of respondents thought it meant that a fat was *less* saturated. Only one-third of the people knew that cholesterol is only present in foods of animal origin. Almost half of consumers thought that cholesterol was in any food containing fat or oil. Only 29 percent knew that a "cholesterol-free" food could still be high in saturated fat (Lecos, 1988).

Giant Food, Inc., a Washington, DC-based food chain, and the National Cancer Institute (NCI) sponsored focus groups to gain insight on consumer knowledge, attitudes, and behaviors regarding nutrition and disease prevention. All of the focus group participants knew that an excess of dietary fat is bad for health. However, none of the participants could define the different types of fat. Puerto Rican and Mexican American participants knew there were different kinds of fat but could not differentiate among them. Although Puerto Ricans were able to identify animal fat as "bad," they did not recognize certain food (e.g., butter) as sources of animal fat (NCI, Consumer Education Project, 1986). Other groups as well were confused about fat definition and sources. Black respondents, especially, were confused about fat content in foods.

In focus groups sponsored by the Henry J. Kaiser Family Foundation, blue-collar workers knew that excess dietary fat is bad for health, but they could not identify the degree of fat in food unless the foods were at the extremes of a fat continuum (very high in fat or not fatty at all). Foods for which blue-collar workers had difficulty identifying the degree of fat included lamb, pork, cheese, pizza, fish, baked goods, and margarine.

ABOUT DIETARY FIBER

The issue of dietary fiber and its protective ability seems to create confusion among consumers. The 1986 FDA/NHLBI Health and Diet Survey found that 32 percent of consumers believed that fiber helps to prevent cancer. A survey conducted by NCI (NCI, Cancer Prevention Awareness Survey, 1988) found that when consumers were asked if they believe that fiber foods can *increase* the chance of getting cancer, 47 percent of black males, 38 percent of black females, 19 percent of white males, and 11 percent of white females incorrectly responded "yes."

CHANGING DIETARY CONCERNS

According to a nationwide telephone survey conducted for the Food Marketing Institute (FMI) (1987), public concern about nutrition has changed over the last few years. There has been a shift from general concern about the topic of "nutrition" to concern about specific dietary issues, such as dietary cholesterol, fat, and fiber.

This shift, coupled with misinformation regarding fiber and dietary fat, has led some nutrition experts to believe that the public tunes in to nutritional "buzz" words but lacks a complete understanding of what constitutes a healthful diet.

Knowledge and concern are lower in some population groups. Since 1983, *Prevention Magazine* has conducted an annual national telephone survey of randomly selected adults. Of those surveyed, blacks and Hispanics, especially those with less education and low income, had become less concerned about dietary issues between 1983 and 1987. Specifically, the concern about dietary fat decreased to the lowest degree for blacks, for people living in the South, and for people with 12 or fewer years of education. Those adults whose efforts to avoid high-cholesterol foods decreased from 1983 to 1987 were male, black, Hispanic, aged 30 to 39 years, had 12 or fewer years of education and lived in the eastern United States. Those respondents who reported that they "try a lot to avoid eating too much fat" were white females, ages 50 to 64, with some college education, who lived in central cities in the South or the West (Prevention Magazine, 1987).

Blue-collar consumers in the Henry J. Kaiser Family Foundation focus groups viewed the dietary fat issue as "just another scare." They felt that they had enough things to worry about (e.g., finances) and that what they eat is not one of those worries.

The Kaiser focus group findings revealed that only those participants who were highly motivated to reduce their risk for disease were very knowledgeable about dietary issues and appropriate dietary behaviors. This highly motivated group was primarily comprised of white, middle-aged, middle income, married consumers. Those participants who were not motivated to change their dietary habits to decrease their risk of disease were confused on several issues pertaining to diet and food choice. These consumers were comprised of young, single, low SES whites, blacks, and Hispanics (Advertising Council, 1988).

PHYSICAL ACTIVITY AND EXERCISE

The scientific evidence linking physical activity, physical fitness, and health is growing, but is not as extensive as the information associating diet and health, nor have the research findings been synthesized or recommendations issued for public guidance as is the case with diet. However, regular physical activity is credited with reducing coronary heart disease risk, enhancing weight control, and reducing symptoms of anxiety and mild to moderate depression. In fact, a report by the Centers for Disease Control (CDC) suggests that a lack of physical activity is nearly as great a risk factor for CHD as other more highly publicized risk factors, such as high serum cholesterol, smoking, or high blood pressure (CDC, 1987). Other possible benefits of physical activity include reduced blood pressure, lower rates of osteoporosis, and better control of non-insulin-dependent diabetes mellitus.

In 1978, the American College of Sports Medicine (ACSM) issued a position statement that defined "appropriate physical activity" as exercise which involves large muscle groups in dynamic movement for periods of 20 minutes or longer, 3 or more days per week, and which is performed at an intensity of 60 percent or greater of an individual's cardiorespiratory capacity (American College of Sports Medicine, 1978). Evidence continues to build, however, to indicate that lower levels of activity can have health benefits as well. Powell and others suggest that the reduction in the risk of CHD is greatest for those formerly sedentary people who then become more active than for those highly active people who further increase their level of activity (Powell, Spain, Christenson, and Mollenkamp; 1986). Multiple Risk Factor Intervention Trial (MRFIT) data show a significant reduction in CHD mortality, sudden death, and overall mortality associated with participation in relatively low intensity types of physical activity, most commonly walking, gardening, yard work, and home repairs (Leon, Connett, Jacobs, et al.; 1987). A study of Harvard alumni (Paffenbarger, Hyde, Wing, and Hsieh; 1986) has also shown a reduced risk of CHD and overall mortality associated with relatively moderate levels of physical activity similar to those levels in the MRFIT study.

The current science base suggests that encouraging Americans to increase their level of activity and gain the subsequent health benefits is a sensible public health strategy. What is less clear, however, is how to get people to become active and stay active to accrue those benefits.

TRENDS IN EXERCISE BEHAVIOR

Estimates about how active the U.S. population really is vary widely. Reasons for this variation rest in the different definitions that researchers use for physical activity and the different methodologies used to assess physical fitness.

A review of eight national surveys conducted in the United States and Canada between 1972 and 1985 cite prevalence estimates for leisure-time physical activity ranging from 15 to 78 percent (Stephens, Jacobs, and White; 1985). When the variation in definitions of physical activity is considered, it appears that approximately 20 percent of the public exercises at a level recommended for cardiovascular benefit, while at least 40 percent are completely sedentary, leaving 40 percent with levels of exercise below the level recommended for cardiovascular benefit but perhaps sufficient for other health benefits such as increased flexibility and strength which can be important in fall prevention.

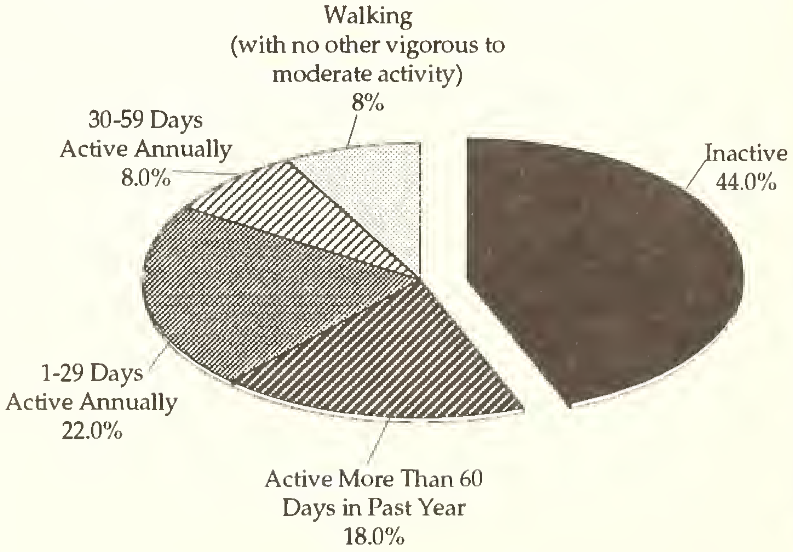
Estimates of prevalence from the 1985 National Health Interview Survey (NHIS) showed only 7.6 percent for persons participating in physical activity meeting the 1978 ACSM criteria for cardiovascular benefit (Caspersen, Christenson, and Pollard; 1986).

One analysis of physical activity in the adult population was conducted for the International Racket Sports Association (IRSA). The data are from a national probability sample of over 19,000 adults ages 18 and over collected in 1988. Among those who were inactive, 75 percent had 12 or fewer years of education, 60 percent had household incomes under $25,000, 45 percent were 35 to 65 years old, and there were slightly more women than men. As shown in figure 2, few are attaining the level of physical activity recommended by the American College of Sports Medicine (IRSA, 1989).

However, more Americans participate regularly in activities of lower intensity. According to data from the 1985 NHIS, 38 percent of men and 46 percent of women reported that they had walked for exercise in the past two weeks. Participation rates were higher for younger blacks, particularly ages 18-29, than for whites and for non-Hispanics of all ages than for Hispanics (NCHS, Schoenborn, 1988).

An analysis of the 1985 National Health Interview Survey (NHIS) shows that physical activity is positively associated with education, occupational activity levels, and income (Caspersen, et al.; 1986). Table 10 shows that almost half (49.2 percent) of respondents with fewer than nine years of education were sedentary, compared to 18.5 percent of those with 13 years or more. There was a modest increase in those classified as being irregularly active (from 25.9 percent to 31.1 percent) as education level increased. There was more than a twofold increase among persons meeting the criteria for regular participation in physical activity and appropriate physical activity (from 4.7 percent to 11.1 percent) as education level increased. Furthermore, as occupational physical activity levels increased, there was a decrease for those meeting criteria for regular and appropriate physical activity (from 8.2 percent to 5.5 percent).

Figure 2. Annual Activity Status of the Total Adult Population



Source: International Racket Sports Association, 1989.

The Hispanic Health and Nutrition Examination Study (1982-1984) included a question regarding leisure-time physical activity. Preliminary data reported in a CDC-sponsored program guide shows that at least two-thirds of 5,769 Mexican Americans responded that they "sometimes" or "hardly ever" participate in a leisure-time activity that requires a lot of body movement or energy (Centers for Disease Control, 1988). COSSMHO (1988) reports that data from the San Antonio Heart Study in Texas show that Mexican Americans exercise less than do non-Hispanic whites.

KNOWLEDGE AND DETERMINANTS OF PHYSICAL ACTIVITY AND EXERCISE

What makes people adopt and maintain a pattern of regular physical activity is still far from clear. In assessing the public's level of knowledge alone, far fewer estimates are available about exercise than about diet. Similar gaps exist in what attitudes and beliefs are held about the risks and benefits of exercise, and what effect knowledge, attitudes, and beliefs have on physical activity behavior. Nevertheless, researchers are beginning to develop a body of knowledge that looks at the personal, environmental, and activity characteristics that determine the adoption and maintenance of a regimen of physical activity.

An analysis by Caspersen and colleagues of the 1985 NHIS data shows that 39 percent of respondents knew the appropriate exercise frequency (3 or more times per week), 23 percent knew the appropriate exercise duration (20 minutes or more), and 34 percent knew the appropriate exercise intensity (at 60 percent or more) to influence cardiovascular health. But only 5 percent of respondents knew all three (Caspersen, et al.; 1986).

Table 10. Distribution of Four Levels of Leisure-Time Physical Activity According to Sex, Age, Education, Race, Occupational Activity, and Income: United States 1985
(In Percent)

	Sedentary	Irregularly active	Regularly active, but not appropriate physical activity	Regularly active and appropriate physical activity
Sex				
Male	24.8	30.9	36.2	8.1
Female	30.2	31.3	31.5	7.0
Age				
18-29 Years	18.3	30.1	41.5	10.1
30-44 Years	24.2	34.5	33.7	7.7
45-64 Years	32.7	31.9	30.8	4.7
65 and over	42.6	25.0	24.9	7.5
Education				
Less than 9 Years	49.2	25.9	20.2	4.7
9-11 Years	35.5	31.4	28.3	4.9
12 Years	26.9	32.7	34.4	6.0
13 or more Years	18.5	31.1	39.3	11.1
Race				
White	27.1	31.1	34.1	7.7
Black	31.9	31.2	30.0	6.9
Others	30.4	28.8	33.8	7.1
Occupational Activity				
Light	28.2	30.1	33.5	8.2
Moderate	25.1	33.9	34.9	6.1
Heavy	27.8	33.3	33.4	5.5
Income				
Less than $7,000	35.1	26.0	30.5	8.5
$7,000-$14,999	32.1	30.0	31.6	6.3
$15,000-$24,999	28.1	32.0	33.4	6.5
$25,999-$39,999	22.9	33.3	36.4	7.5
$40,000 or more	19.0	32.6	37.9	10.5

Source: Caspersen et al., 1987

In reviewing the determinants of exercise, it has been found that there are a number of reasons why a person adopts and maintains a program of physical activity. Unalterable personal characteristics such as age or sex may predict the possibility that a person will participate in an exercise program. Generally, men more than women and younger persons more than older persons are likely to engage in an exercise program. However, other factors that can be individually controlled, such as time management and moral support, also heavily influence a person's level of participation in exercise and physical activity (Sallis, 1986).

A 1984 review of the literature identified adherence to physical activity with personal characteristics such as a history of past participation in the program, individual risk for CHD, good perceived health, and self-motivation (Dishman, Sallis, and Orenstein; 1985). Dishman et al. concluded, however, that the role of health beliefs in the adherence to supervised exercise programs remains to be demonstrated. Personal characteristics such as smoking, blue-collar occupation, and obesity were negatively associated with adherence. Environmental factors such as support of a spouse, social reinforcement, convenience of the exercise setting and geographic proximity to home, and perceived time were found to be important for adherence. Table 11 summarizes variables that may determine the probability of exercise.

Table 11. Summary of Variables That May Determine the Probability of Exercise

Determinant	CHANGES IN PROBABILITY Supervised Program	 Spontaneous Program
Personal Characteristics		
Past program participation	++	
Past extra-program activity	+	
School athletics, 1 sport	+	0
School athletics, >1 sport		+
Blue-collar occupation	—	-
Smoking	—	
Overweight	—	
High risk for coronary heart disease	++	
Type A behavior	-	
Health, exercise knowledge	-	0
Attitudes	0	+
Enjoyment of activity	+	
Perceived health	++	
Mood disturbance	—	—
Education	+	++
Age	00	-
Expect personal health benefit	+	
Self-efficacy for exercise		+
Intention to adhere	0	0
Perceived physical competence	00	
Self-motivation	++	0
Evaluating costs and benefits	+	
Behavioral skills	++	
Environmental characteristics		
Spouse support	++	+
Perceived available time	++	+
Access to facilities	++	0
Disruptions in routine	—	
Social reinforcement (staff, exercise partner)	+	
Family influences		++
Peer influence		++
Physical influences		+
Cost		0
Medical screening	-	
Climate	-	
Incentives	+	
Activity characteristics		
Activity intensity	00	-
Perceived discomfort	—	-

KEY: ++ = repeatedly documented *increased* probability; + = weak or mixed documentation of *increased* probability; 00 = repeatedly documented that there is *no change* in probability; 0 = weak or mixed documentation of *no change* in probability; - = weak or mixed documentation of *decreased* probability; — = repeatedly documented *decreased* probability. Blank spaces indicate no data.

Source: Dishman et al., 1985

In the IRSA study, respondents' desire to have a regular exercise program was assessed based on their prior participation in regular exercise. Among the 40 percent of women who had previously exercised regularly, 61 percent indicated at the time they were interviewed that they would like a regular exercise program. Among the 60 percent of previously inactive women, 29 percent, a substantial number of people, wanted an exercise program. Similarly among the 35 percent of previously active men, 51 percent would like to exercise now, and among the 65 percent of previously inactive men, 29 percent would like a regular exercise program (IRSA, 1989).

While no particular type of activity has been associated with better adherence to an exercise regimen, activities of greater intensity and perceived exertion are associated with significantly lower rates of adherence. Determinants of adherence to a spontaneous physical activity program have not been examined as closely as have been determinants for supervised programs. However, the two appear to have a similar profile. This issue may be important since the most popular types of physical activities are those that can be done independently. Yet, lack of time due to work pressures and lack of personal discipline are the greatest barriers to initiating or maintaining physical activity (Harris et al., 1989).

Dishman and colleagues suggested that, based on the relatively sparse literature, those who may get the most health benefit from an exercise regimen seem most resistant to adopting or maintaining one. Thus, interventions aimed at personal change may be more effective if they help people feel good about themselves than if they focus exclusively on knowledge of the health benefits of physical activity and exercise (Dishman et al., 1985).

Misconceptions about risks of exercise were found to be barriers for older people (over age 50) in focus group research conducted by ODPHP (Maloney, Fallon, and Wittenberg, 1984). For example, some older people reported that they do not exercise for fear of heart attacks and strokes and others believed that "if you keep going after you get tired, you can bring up your blood pressure and get a stroke."

WEIGHT CONTROL

In the past decade, more than a dozen scientific panels, voluntary agencies, and governmental organizations have issued dietary recommendations to the American public to reduce chronic disease. One recommendation that all of these groups have in common is to maintain a healthy body weight by striking a balance between energy taken in through food consumption and energy expended in activity and exercise. When these factors are correctly balanced, a healthy weight is maintained.

For many Americans, however, the idea of maintaining body weight has traditionally been tied with the notion of "going on a diet" to "lose weight." The existence of a multimillion dollar weight loss industry, the continuing popularity of "fad" diets, and large numbers of people reporting they are dieting to lose weight underscore the probable gap between contemporary scientific knowledge regarding weight control and the understanding of the American public.

WHO IS ATTEMPTING TO LOSE WEIGHT?

Despite the prevalence of overweight in our society, personal perceptions of overweight vary from these data. 1985 NHIS data indicated that only 16 percent of adult men age 18 and over classified themselves as "somewhat" or "very" overweight while 33 percent of women put themselves in those categories. An additional 20 percent of men and 22 percent of women classified themselves as "only a little" overweight (Thornberry, Wilson, and Golden, 1986). More white women considered themselves to be overweight than did black women. This finding was true for women who were overweight (92 percent versus 84 percent) and for women who were normal weight (58 percent versus 40 per-cent) (Stephenson, Levy, Sass, and McGarvey; 1987).

The 1985 NHIS also asked respondents if they were trying to lose weight at the time of the survey. In response to this question, 25 percent of men and 44 percent of women reported trying to lose weight. Additional analyses of these data by Stephenson et al. (1987) classified respondents as overweight, normal, or lean according to the body mass index (BMI) criteria developed by the National Center for Health Statistics. Women were more likely than men to try to lose weight regardless of their weight status, with 63 percent of overweight women, 47 percent of normal weight women, and 16 percent of lean women trying to lose weight. One out of every two women ages 30 to 44 reported trying to lose weight, more than any other age group. For men, the highest percentage (30 percent) was reported among 45- to 64-year olds. More white women (45 percent) than black women (41 percent) and more white men (25 percent) than black men (20 per-cent) were trying to lose weight (Stephenson et al., 1987).

These same data have shown that income and education levels are related to attempts to lose weight, with those with higher education levels and incomes more likely to attempt to lose weight. Those who are overweight and least likely to try to lose weight have fewer than nine years of education (Stephenson et al., 1987).

REASONS FOR DIETING

Simmons Market Research Bureau, Inc. (ODPHP, 1990) data from its sample of 19,000 adults who were dieting provides reasons why people were controlling their diets when interviewed in 1988. Table 12 shows that the most frequent reason given for dieting was to lose weight, with 24.7 percent of whites, 17.8 percent of blacks, and 20.8 percent of Hispanic adults ages 25 to 64 dieting for weight loss. Health reasons were also mentioned, but with much less frequency. For example, 5.5 percent of whites and 3.7 percent of blacks said one reason for controlling their diet was their cholesterol level; 3.7 percent of whites and 3.5 percent of blacks were dieting because of hypertension; and 3.8 percent of whites and 2.8 percent of blacks were dieting to lower salt intake. Given the prevalence of these disorders in the general population, the number mentioning them as a reason for controlling their diets is very low. For example, about 38 percent of adult blacks and 29 percent of whites are hypertensive (*Surgeon General's Report*, 1988).

UNDERSTANDING METHODS OF WEIGHT CONTROL

Research has increased our understanding of the key factors associated with successful weight control,

Table 12. Reasons for Dieting Among 25-to 64-Year-Olds by Race, Ethnicity, and Level of Educational Attainment: United States 1988
(In percent)

	WHITE		BLACK		HISPANIC	
	All	High School or Less	All	High School or Less	All	High School or Less
Dieting, Myself	28.2	26.3	21.6	18.2	23.6	21.0
Reasons Given for Dieting						
Blood Sugar Level	2.7	2.9	3.0	*	*	*
Cholesterol Level	5.5	4.9	3.7	*	*	*
Diabetes	1.6	2.0	*	*	*	*
Heart Disease	1.4	1.7	*	*	*	*
Hypertension	3.7	3.8	3.5	*	*	*
Salt	3.8	3.7	2.8	*	*	*
To Gain Weight	*	*	*	*	*	*
To Lose Weight	24.7	22.9	17.8	15.4	20.8	17.9
To Maintain Weight	3.8	3.2	2.5	*	*	*

*Number of respondents was too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1989

i.e., the need to balance energy intake and energy expenditure. However, data suggest that the weight-losing public has not taken full advantage of the relationship of physical activity to weight. In a 1985 survey, of those reporting weight loss attempts, 32 percent of men and 35 percent of women reported eating fewer calories and 14 percent of men and 9 percent of women reported increasing physical activity to do so. Among the overweight, about 43 percent of overweight women and 44 percent of overweight men reported adopting weight loss regimens that combined exercise and restriction of food intake (Stephenson et al., 1987).

More normal weight and lean men and women than overweight men and women knew that decreasing caloric intake and increasing physical activity is the best way to lose weight. This knowledge increased with educational level and income and decreased with age. Fewer than half of those with nine or fewer years of education knew the optimal weight loss approach. Fewer black women than white women (55 percent versus 75 percent), and fewer black men than white men (59 percent versus 76 percent) could identify that eating fewer calories and exercising more was the best weight loss method (Stephenson et al., 1987).

More overweight people than normal weight people attempt to lose weight with diet alone. In fact, 43 percent of overweight women try to lose weight by diet alone. The adoption of a balanced weight loss regimen is negatively associated with age (younger people were more aware of the relationship than older ones) and positively associated with educational level and income (those having more years of education and higher incomes were more likely to undertake a balanced weight loss program) (Stephenson et al., 1987).

ATTITUDES TOWARD OVERWEIGHT

Overweight does not seem to be viewed equally throughout the population. In a 1983 telephone survey of a probability sample of Illinois residents, being overweight was found to be more acceptable among older persons, married persons, men, the poor, and the poorly educated. Women viewed being overweight as more undesirable than did men (Hayes and Ross, 1986).

The San Antonio Heart Study examined attitudes related to obesity and dieting. In this study, Mexican American and non-Hispanic whites both believed they would look better if they lost weight. However, Mexican American men in the low socioeconomic group thought there was nothing wrong with gaining weight as one grows older. They also believed Anglos placed too much attention on losing weight. Mexican American women shared this belief and were less likely than Anglos to believe that exercise could decrease their weight and aid weight loss (Stern, Pugh, Gaskill and Hazuda, 1982).

LINK OF DIET, EXERCISE, AND WEIGHT CONTROL BEHAVIORS

Although the three risk factors examined in this report are linked in their effect on health status, it does not necessarily follow that they are linked in individual practice. Most health communication efforts approach risk factors individually, or at most, sequentially, even if multiple risks are prevalent in the target population. While this approach helps simplify complex information, it may in itself add to misconceptions by fragmenting messages. Though clinical outcomes have been favorable in trials which address multiple risk factors such as the Multiple Risk Factors Intervention Trial (MRFIT, 1982), the behavioral research base does not yet exist to demonstrate the advantages and disadvantages of addressing single or multiple risk factors in public education programs.

BENEFITS OF MULTIPLE POSITIVE HEALTH HABITS

It is well established that personal health habits not only have an influence on current and subsequent health status and long-term survival, but that the results are additive. A nine-and-one-half year follow-up study of 6,928 persons in Alameda County, California, showed that people who followed seven identified health habits lived longer than those who did not. The identified health habits were:

1) having never smoked;
2) drinking fewer than five alcoholic drinks on one occasion;
3) sleeping 7 to 8 hours a night;
4) exercising;
5) maintaining desirable weight;
6) avoiding snacks; and
7) eating breakfast regularly (Breslow and Engstrom, 1980).

RELATIONSHIP AMONG RISK FACTORS

Information is also available regarding the distribution of the "Alameda 7" health habits in the general population from the 1985 NHIS. The data suggest that the practice of healthy habits is less prevalent in socially and economically disadvantaged groups. According to Schoenborn (1986), 12 percent of men and 11 percent of women had six or seven positive health habits; more than half of men and women reported four or five positive health habits; and 37 percent of men and 33 percent of women reported none to three positive habits. As shown on table 13, older persons were more likely than were younger ones to have more positive health practices. Individuals with higher educational levels and higher incomes reported following more healthy practices than those with lower levels of education and lower incomes. Blacks reported fewer positive health habits than did whites.

To analyze if there is a relationship among risk factors, Schoen-born and Benson (1988) used 1985 NHIS data to compare relationships between smoking and other unhealthy habits. Compared to nonsmokers, smokers were more likely to get little sleep, skip breakfast, not exercise actively, and drink alcoholic beverages heavily. Smokers, especially light smokers, were also less likely than nonsmokers to be overweight and to snack daily.

Blair, Jacobs, and Powell (1985) examined the literature and analyzed data from the National Survey of Personal Health Practices and Consequences and the Behavioral Risk Factor Surveillance Survey (BRFSS) to compare the relationship of exercise and physical activity to smoking, alcohol intake, substance abuse, diet, weight control, stress management, risk-taking behavior, and preventive health examinations. They reported small and often statistically insignificant relationships among risk factors. Their most significant finding was the relationship between physical activity and weight control. Physically active people weighed less than those who were sedentary even though they consumed more calories. The data showed a negative relationship between smoking and physical activity, although it was not a strong one. Previously, the findings from one study of a public education campaign had suggested that exercise might serve as a "seducer" to other healthy practices such as quitting smoking (ODPHP, 1982). These findings did not support that suggestion, although they did underscore the importance of physical activity in controlling weight.

HEALTH BEHAVIOR CLUSTERS

Only a few studies have tried to determine how health behaviors might cluster in individuals. A study of university students by Norman (1985) found that health actions in one behavioral domain were dependent of those in another. The strongest relationships were found between the perceived hedonistic quality of the action rather than the perceived health-promoting benefits.

Mechanic and Cleary (1980) found that positive health practices were part of an overall style of living, reflecting social values, psychological well-being, and integration into the dominant culture. In contrast, they described negative health behavior as part of a lifestyle in which people are more isolated from the dominant culture, are

Table 13. Percent Distribution for Total Number of Good Health Habits of Persons 18 Years of Age and Older by Sex and Selected Characteristics: United States, 1985 (NHIS)

	MEN					WOMEN				
		Number of good habits					Number of good habits			
Characteristic	1,000's	0-3	4	5	6-7	1,000's	0-3	4	5	6-7
Total	80,779	36.6	27.8	23.4	12.2	90,192	33.3	30.9	24.8	11.1
Age										
18-29 years	23,569	40.2	27.5	22.4	9.8	24,756	35.7	31.2	23.1	10.1
30-44 years	24,891	41.6	27.9	20.5	10.0	26,201	36.3	29.7	23.3	10.7
45-64 years	21,215	34.4	28.2	24.7	12.7	23,297	35.8	29.6	24.0	10.6
65-74 years	7,311	21.7	26.4	30.1	21.7	9,381	23.4	33.6	29.4	13.6
75 years and older	3,794	22.3	29.8	28.2	19.7	6,558	17.8	35.0	33.0	14.0
Education										
Less than 12 years	19,186	43.4	28.5	19.8	8.3	22,244	41.6	31.3	20.3	6.8
12 years	28,736	41.2	27.2	22.1	9.5	37,740	34.8	32.3	23.6	9.3
More than 12 years	32,594	28.5	28.0	26.7	16.8	29,942	25.1	28.8	29.7	16.4
Income										
Less than $7,000	6,223	41.7	28.1	22.0	8.3	10,386	39.9	31.6	21.7	6.8
$7,000-$14,999	11,158	39.9	27.8	21.9	10.3	15,277	35.0	32.4	23.4	9.1
$15,000-$24,999	16,914	38.0	28.6	22.1	11.3	17,939	35.0	31.3	23.6	10.1
$25,000-$39,999	21,212	35.9	27.7	24.2	12.1	19,503	31.7	30.5	26.0	11.8
$40,000 or more	16,312	31.0	26.4	25.5	17.1	15,595	27.2	28.3	28.0	16.5
Race										
White	70,582	35.7	27.6	23.8	12.9	77,657	31.3	30.9	25.9	11.9
All other	10,197	43.0	29.5	20.5	7.1	12,536	45.4	30.9	17.6	6.1
Black	8,247	46.2	27.4	19.4	6.9	10,333	48.8	31.2	15.6	4.4

Note: Excludes persons for whom data on all health habits are unknown.

Source: Schoenborn, 1986

uncomfortable with the medical care system, and are less in step with their social context.

Two recent analyses of survey data have identified clusters of health behaviors and attitudes in the general population. *Prevention Magazine* (1989) undertook an analysis of its 1988 national survey on the health and safety behaviors of Americans to find what relationships might exist among the reported behaviors. The goal was to define clusters of people who differ from each other in health and safety behavior. The study identified six distinct and coherent groups:

- **The Healthy and Wealthy** — representing 28 percent of the population, rate highest in overall health behavior, despite some weaknesses.
- **The Safe and Satisfied** — representing 8 percent of the population, have fairly healthy lifestyles and seem content with their level of effort.
- **The Sedentary but Striving** — representing 9 percent of the population, are slightly above average in health behavior but are eager to improve. They are aware of improvements that need to be made in terms of health,

but are having difficulties in implementing these changes. They rank high in terms of wanting to exercise and eat better. Demographically, this group is predominantly female and between the ages of 18 and 59. They are likely to be minorities with low income levels. Many are seriously overweight (77 percent) and are way below the national average for getting regular strenuous exercise. On the other hand, this group tends to have excellent records for annual cholesterol and blood pressure checks, automobile and home safety, and for drinking moderately.

- **The Young and Reckless** — representing 42 percent of the population, know a lot about healthy habits but are often unwilling to act on their knowledge. Almost evenly split between men and women, members are mostly under the age of 35 and have slightly higher than average levels of education and income. Racial distribution mirrors that of the U.S. population. Some specific characteristics include: poor performance in adhering to recommended dietary practices, although better than average in getting frequent strenuous exercise; poor automobile safety records; and only average records for having annual blood pressure and cholesterol tests.

- **The Fat and Frustrated** — representing 8 percent of the population, express the strong desire to be healthy but are often confused by health information and seem to lack the resources to act upon what they know. Members of this group are mostly older than 35, women, and likely to be minorities. They also have the lowest educational level of any group. Members are severely overweight, have high stress levels, and exercise infrequently. Although they visit physicians annually for blood pressure and cholesterol tests, they rarely visit the dentist.

- **The Confused and Indifferent** — representing 5 percent of the population, do not seem to care that they rank lowest in health behavior. Knowledge levels are low, while confusion levels are high. Almost evenly split among men and women, members are primarily white, with slightly lower than average education and income, and likely to work at blue-collar jobs. Specifically, they have the worst dietary habits by far, especially in terms of limiting fat, salt, and sugar intake. They generally have poor automobile safety records, and the group rarely reports for annual blood pressure and cholesterol exams.

According to the report, few people seemed to be fully committed to a healthy, safe lifestyle. Even the Healthy and Wealthy were below average for frequent, strenuous exercise. The people most likely to take action to improve their health were those in the middle years, people ages 35 to 59. There did not appear to be any connection between those people who were very strict about what they eat and those who got strenuous exercise on a regular basis. It does appear, however, that many people who got frequent exercise, especially younger ones, may have done so in order to overindulge at the dinner table. Not surprisingly, the high number of people who reported that they want to eat better have done little to act on that desire. However, there was a connection between people who were most likely to wear safety belts and those most likely to drive after drinking.

The National Cancer Institute has also undertaken a psychographic segmentation from a survey of cancer and health-related attitudes and behaviors. A descriptive profile of six distinct groups was built using demographic and psychographic traits. NCI's clusters are:

- Health Achievers
- Naive Optimists
- Vulnerable Procrastinators
- Isolated and Confused
- Recalcitrants
- Receptives

According to an NCI report of the findings, public understanding about cancer prevention has been concentrated among the "early adopters," who are also higher SES and at lower risk for disease. The segmentation was developed to help find ways to penetrate new audiences, audiences that might be harder to reach, inform, and motivate about cancer messages (NCI, 1990).

SUMMARY

The review of knowledge, attitudes, and practices of the general population reveals that although there are "health achievers," there are significant numbers of people who have not been influenced by the health promotion messages of the past decade. In the area of physical activity, in particular, the majority of the population have not changed their sedentary lifestyles. In all three topic areas, those Americans with lower educational levels and lower incomes are at highest risk from their health practices.

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CHAPTER FOUR

TARGET AUDIENCE ANALYSIS

As the two previous chapters have shown, there is evidence that certain sectors of the population, notably minority and low income persons, continue to experience higher levels of risk and excess mortality and morbidity when compared to the general population. In addition to the relationship between behavioral risk factors and health status, socioeconomic status emerges as an important factor in predicting health outcomes. Consequently, other factors such as occupation, family income, and educational level were considered important variables for this project.

An operational definition of the target population was developed to be used in recruiting participants in the focus group discussions and to identify the categories for analysis for the Simmons Annual Survey of Media and Markets database. The demographic parameters for the study population were:

- black, white, and Hispanic men and women between the ages of 25 and 64;
- with family incomes ranging between poverty and median family income levels; and
- high school graduation as the maximum level of educational attainment.

Further discussion about how these characteristics were used to select focus group participants can be found in Chapter 5.

This chapter reviews these demographic characteristics of the target population and others that, combined with the focus group results, help to provide a descriptive profile of the study population that can be used in designing health promotion programs. This review is not intended to be comprehensive, rather it is presented to help set the context for the presentation of the focus group results and the analysis of the Simmons database. In addition to socioeconomic indicators and other population characteristics, factors significant to designing health communication progams also are reviewed, such as geographic location of racial and ethnic groups, language preferences of Hispanics, and literacy levels.

POPULATION OVERVIEW

Thirty-two percent of the general U.S. population meets the demographic characteristics of the project population under study (see table 14). By their age, 25 to 64 years old, these people are responsible for themselves, as well as others. Through their work and other duties, they exert influence on their children, extended families, neighbors, friends, and coworkers. The older segment of this group begins to see in themselves and in their contemporaries the development of chronic diseases and conditions. They may begin to see that some among them seem to stay "younger" and more vital for various reasons. It represents a time when change in lifestyle habits can bring benefits in terms of the onset and course of disease.

In 1987, the size of the U.S. population was 243,400,000, and the median age was 32.1. Half (50.7 percent) of the total population were between ages 25 and 64. The national median income of a family of four was $39,051, and $12,092 was the income level for a family of four in poverty in 1988 (U.S. Bureau of the Census, Statistical Abstract, 1989; Money Income and Poverty Status in the United States: 1988, 1989).

RACE/ETHNICITY

In 1987, 84 percent of the U.S. population was white, 12 percent was black, and about 8 percent was Hispanic (see table 15). Since Hispanics may be identified by the Census as either black or white, demographic data on Hispanics may reflect an unknown amount of double counting or under counting regarding racial designation (U.S. Bureau of the Census, Population Department, Personal Communication, Audrey Primas). Table 15 also provides information on the percent of women among whites, blacks, and Hispanics and the median age for each group. The median age of Hispanics is less than that of whites and blacks principally because of the relatively high birth rate and immigration patterns.

Table 14. Total Population Between the Ages of 25 and 64 With 12 Years of Education or Less: United States, 1979
(In percent)

Total	32.0
White Population	25.6
Males	11.7
Females	13.9
Black Population	3.8
Males	1.7
Females	2.1
Hispanic Population	2.6
Males	1.2
Females	1.4

Source: U.S. Bureau of the Census, *1980 Census of the Population/General Social and Economic Characteristics*, 1983.

The Hispanic population includes Mexican Americans (62 percent), Puerto Ricans (13 percent), Central and South Americans (12 percent), Cubans (5 percent), and "other" Spanish origin groups (8 percent) (U.S. Bureau of the Census, *Hispanic Population in the United States*, 1988).

INCOME

While the national median income of families in 1988 was $32,191, the median income levels of black and Hispanic families were significantly lower: $19,329 for blacks and $21,769 for Hispanics (see table 16). Similar differences were evident in the median income of female head of households, with no husband present (*Money Income*, 1989).

Another illustration of income differences is shown in table 17. In 1987, almost two-thirds of white families (65.8 percent) earned an annual income of $25,000 or more, while only 39.3 percent of black families and 43.9 percent of Hispanic families earned an annual income of $25,000 or more (*Money Income*, 1989).

Although the majority of poor persons in 1988 were white (65.1 percent), blacks and Hispanics were overrepresented among the poor. Blacks constituted 29.6 percent of all persons below the poverty level. About 16.9 percent of the poor were persons of Hispanic origin, who may be of any race (although over 90 percent are included in the white racial category in the Current Population Survey). The 1988 poverty rate was 10.1 percent for whites, 31.6 percent for blacks, and 26.8 percent for Hispanics, compared to 13.1 percent for the general population.

Over half of the Americans living in poverty in 1988 were children under 18 (39.5 percent) and the elderly (10.9 percent). Poverty rates for families in 1988 tended to decrease with the increasing age of the householder (from 29.7 for those under age 25 to 6.6 percent for those with a householder age 65 and over), as well as with years of school completed by the householder and the number of workers in the family. Poverty rates for families increased as family size increased (*Money Income*, 1989).

OCCUPATION

Data from the National Center on Health Statistics national health survey (1983-85) were examined by Collins (1989) to assess the health characteristics of the United States

Table 15. Selected Population Characteristics: United States, 1987

	Total Population	White	Black	Hispanic*
Total Number in U.S. (in thousands)	243,400	205,820	29,736	18,790
Percent of U.S. Population*	100	84	12	8
Percent of Females	51	51	53	50
Median Age (Years)	32.1	33.0	27.2	25.1

*Hispanics may be racially identified as white or black. Therefore, figures reflect an unknown amount of double counting. (U.S. Bureau of the Census, Population Department, Personal Communication, Audrey Primas)

Source: U.S. Bureau of the Census, Statistical Abstracts of the U.S, 1989.

Table 16. Median Income of Families According to Race, Spanish Origin, and Type of Family: United States, 1988

	MEDIAN INCOME ($)			
	Total	White	Black	Hispanic
All Families	32,191	33,915	19,329	21,769
Married Couple Families	36,389	36,840	30,385	25,667
Female Householder, No Husband	15,346	17,672	10,657	10,647
Male Householder, No Wife	26,827	28,935	17,853	21,937

Source: U.S. Bureau of the Census, *Money Income and Poverty*, 1988.

Table 17. Families by Total Money Income According to Race and Ethnicity: United States, 1988
(In percent)

Income ($)	Total	White	Black	Hispanic
Under 9,999	10.8	8.5	27.3	20.3
10,000 to 14,999	8.8	8.1	13.6	13.6
15,000 to 24,999	17.8	17.7	19.7	22.2
25,000 to 34,999	16.9	17.4	13.4	16.5
35,000 to 49,999	20.0	21.0	13.3	15.5
50,000 and over	25.7	27.4	12.6	11.9
Median Income	$32,191	$33,915	$19,329	$21,769

Source: U.S. Bureau of the Census, *Money Income and Poverty*, 1988.

by occupation and industry. Occupation is highly correlated with income and education. More than 80 percent of the labor force were high school graduates in 1983-85, but only 21 percent were college graduates. However, 71 percent of persons in professional specialty occupations were college graduates (NCHS, 1989).

The labor force was comprised of 56 percent men and 44 percent women in 1983-85. Some occupations consisted primarily of women: private household occupations (94 percent) and administrative support occupations (80 percent). Men accounted for more than 90 percent of persons in transportation and material moving occupations and precision production, craft, and repair occupations. They also dominated protective service occupations and farming, forestry, and fishing occupations, accounting for 85.5 percent and 84.5 percent of these groups respectively.

The largest proportion of workers with low family income, those earning less than $10,000 a year (1983-85), were in service occupations. Persons in the $10,000-$24,999 income group reported high proportions of workers in administrative support occupations, precision production, craft, and repair occupations, and service occupations. About half of those in the $25,000 or more income group were in professional specialty occupations, executive, administrative, and managerial occupations, and administrative support occupations.

About half of the currently employed persons with less than 12 years of education were concentrated in three occupational groups: 1) precision production, craft, and repair occupations; 2) service occupations; and 3) machine operators, assemblers, and inspectors. Persons with 16 years or more of education were predominantly in two occupational groups: professional specialty occupations and executive, administrative, and managerial occupations.

Table 18 shows the percentage of selected occupations comprised of white, black, and Hispanic workers. Although blacks and Hispanics compose a significant proportion of service, labor, and production occupational categories, traditionally regarded as blue-collar or pink-collar occupations, large numbers of whites participate in these occupational categories as well.

In 1988, the U.S. civilian unemployment rate for persons 16 years of age and over was 5.5 percent (U.S. Bureau of Labor Statistics, 1989). However, unemployment rates are higher among persons 18-44 years of age, more than twice as high for blacks as for whites, higher among persons with less than 12 years of education, and higher among persons in families with incomes of less than $10,000 (Collins, J.G., 1989).

EDUCATIONAL ATTAINMENT

The proportion of the adult population 25 years old and over who completed high school increased from roughly one-quarter in 1940 to nearly three-quarters in 1985, according to a report on educational attainment published in 1987 by the U.S. Bureau of the Census. The proportion who were college graduates also rose considerably during the same period. However, while the opportunity to complete high school is now nearly universal, the chance of continuing on through college is not. Nearly half of all high school graduates attend college, but only slightly more than half of those complete 4 years of college.

As data from the Census Bureau in table 19 show, about the same percentage (40 percent) of whites and blacks between the ages of 25 and 44 had completed four years of high school by 1985. The cohort of Hispanics who had completed four years of high school was considerably smaller (31 percent).

However, in the older age groups, ages 45 through 64, the proportion of blacks and Hispanics who had completed four years of high school were more similar and substantially smaller than that for the same age cohort of whites. In addition, almost half of Hispanics ages 45 to 64 years (48.2 percent), and a third of those ages 25 to 44 (30 percent), had completed 8 or fewer years of education.

Table 18. Distribution of Selected Occupations of the Civilian Labor Force by Race and Ethnicity: United States, 1988
(In percent)

	Percent of Occupation Who Are:		
	White	Black	Hispanic
Managerial and Professional Specialty Occupations	90.4	6.1	3.7
Technical, Sales, and Administrative Support Occupations	87.7	9.1	5.8
Service Occupations (Private Household)	75.6	22.6	16.7
Precision Production Occupations	87.7	8.6	8.8
Operators, Fabricators, and Laborers	82.3	15.0	11.1
Farm Workers and Helpers	89.5	8.7	23.0
Lawyers	96.5	1.9	1.9
Judges	90.9	9.1	<0.1
Health Diagnosing Occupations	88.4	2.8	4.0

Source: U.S. Department of Labor, Bureau of Labor Statistics, Unpublished Tabulations from the Current Population Survey, 1988 Annual Averages.

By 1980, gender differences in the proportion of the population who completed high school were virtually nonexistent — 86 percent of young men and women (25 to 29 years old) had completed high school. While changes in enrollment trends in recent years have reduced the difference in the proportions of young men and women who are college graduates, a substantial difference remained among all adults 25 years old and over — 23 percent of men and 16 percent of women were college graduates in 1985.

Regional differences persist in the proportion of high school graduates. In 1985, the proportion was lowest for the South at 69 percent, followed by the Northeast (74 percent), Midwest (75.5 percent), and the West (80.2 percent) (U.S. Bureau of the Census, 1987).

INCOME AND EDUCATION

Although there is a direct relationship between income and educational attainment that is apparent for both men and women and all racial and ethnic groups, the positive relationship is strongest for white men compared to other groups. Poverty rates decrease dramatically as years of school completed increase. This general relationship exists regardless of race or Hispanic origin, although large differences exist among these groups within the education category. For example, 24.7 percent of black family householders who were high school graduates (but had not completed any college years) were below the poverty level in 1988, while 16.0 percent of Hispanic householders and only 6.8 percent of white householders with comparable education were poor (*Money Income*, 1989).

Income differentials between the earnings of men and women also persist with comparable levels of educational attainment. For example, in 1988, men in service occupations with four years or more of college earned $20,298 compared to women at $7,147. Similar disparities are evident at every level of education and in all occupational categories (*Money Income*, 1989).

Table 19. Educational Attainment by Age, Race, and Ethnicity: United States, 1985
(In percent)

	ELEMENTARY			HIGH SCHOOL						COLLEGE		
	0-8 Years			1-3 Years			4 Years			1 Year or more		
Years of Age	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
20-24	4.0	3.2	20.5	11.7	17.1	20.5	41.9	46.1	33.8	42.4	33.6	25.2
25-44	4.9	6.8	29.5	8.4	17.9	15.6	40.1	41.0	31.0	46.5	34.3	23.9
45-64	13.5	28.7	48.2	13.3	24.1	12.7	42.5	29.4	26.4	30.7	17.8	12.7
65 and over	32.8	61.4	70.2	16.6	21.9	8.6	30.5	13.0	13.3	20.1	8.9	7.7

Source: U.S. Bureau of the Census, *Educational Attainment*, 1987.

ADDITIONAL CHARACTERISTICS

LITERACY

Available data on illiteracy are limited, making it difficult to get an accurate assessment of the reading and writing levels of the study population. To date, there is no universally accepted definition or measurement of literacy. Literacy levels are often defined by years of schooling but this is considered a proxy measure since actual literacy rates can vary even among high school graduates.

According to one study, the English Language Proficiency Survey commissioned in 1982 by the U.S. Department of Education, approximately 13 percent of American adults ages 20 years and older were classified as "illiterate," i.e., unable to read above the fourth grade level. Of those:

- 41 percent lived in central cities;
- 56 percent were under age 50;
- for whom English is the primary language, 35 percent were between the ages of 20 and 40 years old;
- for whom English is the primary language, 42 percent had no earnings in 1981;
- 37 percent spoke a language other than English in their homes;
- 70 percent of adult illiterates did not complete high school; and,
- States having the highest rate of illiteracy (16 percent) were Mississippi, Texas, New York, Louisiana, and the District of Columbia.

LANGUAGE PREFERENCE

English is the preferred language for whites and blacks. Spanish is the preferred language for over two-thirds of all Hispanics. However, this preference for Spanish varies by geographic region and is highest in the Southeast (see table 20). Data from a 1986 study showed that about 72 percent of Hispanics spoke Spanish in the home, and 36 percent spoke Spanish at their place of work (see table 21).

Lack of reading skills may be a serious barrier for some Hispanic groups. While most Hispanics are able to read Spanish to some extent, proficiency varies and proficiency in English is quite limited. Table 22 provides a summary of U.S. Hispanic English and Spanish language skills. How well Hispanics read English and Spanish varies by geographic region and is shown on table 23. According to the English Language Proficiency Survey, 43 percent of Hispanics ages 20 through 39 years and 61 percent of Hispanics over the age of 40 read English below the fourth grade level.

Table 20. Language Hispanics Are Most Comfortable Speaking According to Region: United States, 1985 (In percent)

Language Spoken	Total	Northeast	Southeast	Central	Southwest	California
Spanish	66.5	62.8	84.1	50.8	56.2	75.8
English	15.4	13.9	3.3	13.2	27.9	7.9
Both	18.1	23.3	12.6	36.0	15.9	16.3

Source: Strategy Research Corporation, 1986.

Table 21. Language Hispanics Speak at Various Times: United States, 1985 (In percent)

Language Spoken	At Home	At Work	On Social Occasions
Spanish	71.7	35.8	54.5
English	10.4	30.0	18.0
Both	17.9	34.2	27.5

Source: Strategy Research Corporation, 1986.

Table 22. Summary of Language Skills of Hispanics: United States, 1985 (In percent)

	Very Good/ Good	Fair/Poor/ Very Poor	Cannot Speak/ Read/Write
Fluency in Speaking Spanish	85.8	14.0	0.2
Fluency in Speaking English	43.0	40.2	16.8
Proficiency in Writing Spanish	77.5	18.1	4.4
Proficiency in Writing English	39.9	37.1	23.0
Ability to Read Spanish	80.7	15.5	3.8
Ability to Read English	42.1	36.0	21.9

Source: Strategy Research Corporation, 1986.

Table 23. Summary of Reading Skills of Hispanics According to Region: United States, 1985
(In percent)

	Total	Northeast	Southeast	Central	Southwest	California
English						
Very Good/Good	42.1	45.3	31.0	56.7	51.1	33.3
Fair/Poor/Very Poor	36.0	38.0	30.2	27.2	30.7	41.5
Cannot Read	21.9	16.7	38.8	16.1	18.2	25.2
Spanish						
Very Good/Good	80.7	81.6	96.7	82.1	64.5	90.2
Fair/Poor/Very Poor	15.5	15.1	3.3	13.1	27.9	8.1
Cannot Read	3.8	3.3	0.0	4.8	7.6	1.7

Source: Strategy Research Corporation, 1986.

GEOGRAPHIC DISTRIBUTION

In 1987, the greatest percentage (34.5) of Americans lived in the Southern region of the United States, followed by 24.5 percent in the Midwest, 20.7 percent in the Northeast, and 20.4 percent in the West (U.S. Bureau of the Census, *Statistical Abstract*, 1989).

In 1985, one-fourth of whites lived in rural areas, one-fourth in central urban cities, and 34 percent lived on the urban fringe or in suburbs (U.S. Bureau of the Census, *Population Profile of the United States*. 1984/1985, 1987). By comparison, 65 percent of blacks lived in central cities (U.S. Bureau of the Census, *We, the Black Americans*, 1986).

While the proportion of whites in each region mirrored the distribution for the general population, the geographic distribution of both black and Hispanic populations was much more concentrated. Over half of the black population lived in the South (53 percent), and 65 percent of all blacks lived in 12 states (see table 24) (*We, the Black Americans*, 1986).

In 1988, about two-thirds of Hispanics (66 percent) lived in three states: California (34 percent), Texas (21 percent), and New York (11 percent). Nearly one-third of the Hispanic population (32 percent) lives in either the New York or Los Angeles media markets. This concentration has important implications for health information programs using the mass media. An additional 23 percent of Hispanics lived in six other states (see table 25) (U.S. Bureau of the Census, *The Hispanic Population in the United States*: March 1988).

Table 24. Black Population Residing in 12 States: United States, 1980
(In percent)

State	Black Population
New York	9.1
California	6.9
Texas	6.5
Illinois	6.3
Georgia	5.5
Florida	5.1
North Carolina	5.0
Louisiana	4.7
Mississippi	4.5
Ohio	4.1
Pennsylvania	4.0
Virginia	3.8
Black Population, 12 States Combined	65.5

Source: U.S. Bureau of the Census, *We, the Black Americans*, 1985.

Table 25. Hispanic Population Residing in 9 States: United States, 1988
(In percent)

State	Hispanic Population
California	33.9
Texas	21.3
New York	10.9
Florida	7.6
Illinois	4.1
Arizona	3.3
New Jersey	3.3
New Mexico	2.8
Colorado	1.9
Hispanic Population, 9 States Combined	89.1

Source: U.S. Bureau of the Census, *The Hispanic Population*, 1988.

The three major Hispanic nationality groups — Mexican Americans, Puerto Ricans, and Cubans — tend to dominate specific regions or states. According to Lipton and Katz (1989), Mexican Americans live primarily in California, Texas, Colorado, and other southwestern states. Puerto Ricans are found primarily in New York and New

Jersey. Cubans live primarily in Florida. The regional concentration of subgroups of the Hispanic population provides an opportunity to tailor media messages that are linguistically and culturally specific to these groups.

SUMMARY

A review of demographic characteristics helps to develop a profile of the target population. This information, combined with that which was presented in the previous chapters, provides a context in which to interpret and understand the results from the focus group discussions that form the centerpiece of the project. In the next chapter, the results of those focus groups will be presented. Similarities and differences in the knowledge, attitudes, and practices of the focus group participants will be identified based on many of the demographic characteristics that have been discussed here.

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CHAPTER FIVE

FOCUS GROUP FINDINGS

Quantitative data alone cannot supply the insights needed to design effective health communication programs. To complement the statistical data, 24 focus groups were conducted with a total of 202 lower SES adults to help uncover their underlying perceptions, feelings, attitudes, and behaviors relating to health promotion and disease prevention practices, especially the three risk factors of diet, exercise, and weight control. Answers to the following questions were sought:

- To what extent is health a priority among those of lower socioeconomic status? How does it compete with other daily concerns?
- What are the general attitudes toward nutrition, food, eating, body weight, weight control, and exercise? How do these differ by age, race/ethnicity, and sex?
- Are there specific beliefs about staying healthy or getting sick that influence behavior?
- What obstacles are perceived to adopting healthy behaviors?
- What might serve to motivate healthy behavior?

METHODS

The focus groups were typically composed of six to nine participants who were unfamiliar to each other. They were selected because they had in common the specific characteristics that were being evaluated. An open-ended discussion was led by a moderator skilled at eliciting different perceptions and points of view.

It is important to remember that there are no right or wrong answers in a focus group. Focus groups are not brainstorming sessions, nor is there an attempt to reach consensus or to teach. They are not conducted to collect "knowledge" types of information for which surveys are more appropriate. Rather, they are exploratory in nature, seeking valuable qualitative input that can be used to help design, test, or assess materials and programs. The same discussion was conducted 24 times to identify trends and patterns in perceptions across the broad target group and within varying segments of participants.

The set of 24 focus groups were conducted during August, September, and October of 1989 in:

- Baltimore, MD
- Philadelphia, PA
- Miami, FL
- New York City, NY
- Chicago, IL
- San Jose, CA
- Oakland, CA
- San Antonio, TX
- Richmond, VA

The groups were segmented by age, sex, and race/ethnicity, as these were variables by which the data would be analyzed for trends and patterns. The various categories are shown in table 26.

- Eight focus groups were conducted for each of three racial/ethnic populations: blacks, whites, and Hispanics (two Cuban, four Mexican American, and two Puerto Rican groups).
- Groups were evenly divided between men and women and younger (25-44 years) and older (45-64 years) persons.

In addition to the selection of participants by age, sex, and race/ethnicity, a mix of married and single individuals were included, with 38 participants living alone and 164 living in households with two or more persons. Individuals or those with immediate family

Table 26. Numbers of Focus Group Participants

	WHITES		BLACKS		HISPANICS	
Age	Males	Females	Males	Females	Males	Females
25-44	18	18	17	16	17	18
45-64	15	17	17	15	17	17

members in treatment for chronic diseases were excluded from the focus groups. In each group, about half the participants considered themselves to weigh more than average, and the other half were evenly split between those who felt they were about average weight or thinner than average.

All participants in the focus groups had a high school education or less. Educational attainment of focus group participants is shown by race/ethnicity and age in table 27.

In addition, participants were recruited based on family incomes below the national median family income but above the Federal poverty level. This status was determined for each individual based on a combination of family income and size of household. The market research facilities that recruited the participants were not always able to recruit single participants (family of one) at the lowest income levels so in some cases these participants' incomes were higher than the family income median for one person. Participant income and household size are shown in table 28.

Participants worked in a range of service, trade, and semi-skilled occupations. For men, occupations included bus driver, construction worker, pizza delivery person, mail clerk, painter, maintenance worker, stock clerk, musician, utility worker, mover, truck driver, bartender, crossing guard, bake shop worker, roofer, sheet metal worker, installer, factory worker, meat market employee, heat pump mechanic, and barber. Among women, occupations were varied, including clerk, homemaker, beautician, tanning salon employee, accounting technician, bank employee, transcriber, building inspector, and employees of government agencies in unspecified positions.

The following topics were covered in each focus group:

- typical daily activities, especially eating and physical activity;
- views on health, sickness, and disease;
- personal priority placed on health;
- the link of behavior and health;
- beliefs and practices related to diet, exercise, and weight control;
- sources of health information.

In two groups with white men and two with black women, participants were asked to react to educational approaches or concepts aimed at conveying health messages.

Focus group findings provide rich and detailed insights into the beliefs and attitudes of a target audience, but as a qualitative research technique the findings are limited. The small number of respondents,

Table 27. Level of Educational Attainment of Focus Group Participants
(Number of Persons)

	WHITES		BLACKS		HISPANICS	
	25-44	45-64	25-44	45-64	25-44	45-64
High School Graduate	24	28	20	22	18	13
Some High School	12	4	12	10	9	11
Grade 6 or Less	0	0	1	0	8	10

Table 28. Focus Group Composition by Family Income and Size of Household: 1989
(Number of Persons)

	FAMILY INCOME ($)							
Size of Household	12,000-14,999	15,000-19,999	20,000-24,999	25,000-29,999	30,000-34,999	35,000-39,999	Poverty Level 1986	Median Family Income 1988
1	12	21	5				5,186	Male: 18,908 Female: 8,884
2		38	17				6,706	27,075
3		13	17	8			7,948	33,614
4		12	18	15	9		10,191	39,051
5			4	5	1	2	12,061	35,993
6					2	1	13,638	36,307
7				1	1		15,509	31,221

and some self selection of participants (i.e., being available at a certain date and time to attend a focus group), limit the representative nature of the participants and suggest cautious interpretation of focus group findings in the context of empirical evidence. Furthermore, since scientific sampling procedures were not used, the findings cannot be generalized to a larger population.

Despite such limitations, focus group data have formed the underpinning of many health communication programs. The findings from the focus groups which follow are conservatively interpreted and placed in the context of findings from other research.

PERCEPTIONS OF HEALTH

A primary purpose of the 24 focus groups was to gain insight into the participants' perceptions and beliefs about health and the relationship of personal behavior to health. This broad issue was explored by finding out how participants:

- ranked health among competing priorities;
- described and defined health and sickness; and
- thought personal behavior was associated with promoting health and preventing disease.

The findings about perceptions of health were rich and yielded insight into underlying beliefs about health that may influence how this audience perceives and interprets information on diet, exercise, and weight control.

WHERE IS HEALTH RANKED AMONG LIFE'S MANY PRIORITIES?

Focus group participants were presented with 16 possibilities for life priorities and they were each asked to rank them in order of personal importance. The results of this process are shown in table 29 for white, black, and Hispanic men and women. Participants were then asked their reasons for making selections. Those reasons are discussed below.

In many ways, the groups were remarkably consistent in their selection of priorities. All groups counted "being healthy" among their top three priorities, along with "being happy with my family." Furthermore, all agreed too that health and family happiness were more important than items such as "looking good," "becoming rich," or "living a long time."

Some revealing differences also appeared. Among Hispanics, the top three choices were:

- Being close to God
- Being happy with my family
- Being healthy

Among blacks, the top choices were:,

- Being close to God
- Being healthy
- Being happy with my life
- Being happy with my family

Among whites, the selections were:

- Being healthy
- Being happy with my life
- Being happy with my family

"Being close to God" was identified as the number one priority by all groups of Hispanic women and one group of Hispanic men. The other groups of Hispanic men ranked "being close to God" as their second, third, or fourth priority. Among older Mexican American men, it tied with "getting a good education for my kids" and among younger Puerto Rican men, it ranked below "having a good love life."

Three of the four groups of Hispanic men identified "being healthy" as their top priority. In discussions, they noted it was a personal priority, because they perceived being healthy as necessary to fulfill their role as family provider and caretaker.

All groups of blacks selected "being close to God" as their first priority, with the choice being nearly unanimous among women. The comments of participants highlighted the strength of the importance of putting God first among blacks and Hispanics.

> "God is most important, because He is the start of everything. If we want money, health, we need to be close to Him."
>
> "Without Him, ain't nothing possible. Got to put Him first before anything, before money or health. If a man don't consider God first, he'll never have too much—without God, you can't survive."
>
> "God be in the first place. All the rest of them going to fall into place if you're close to God."

All but one of the black groups ranked "being healthy," "being happy with my life," and "being happy with my family" among their other top choices though the order differed. "Being healthy" was ranked second by five groups and fourth by three groups. Older men in Philadelphia were the only ones identifying issues that others did not. They selected "having enough money" as number two and "enjoying my job" as number three.

Among whites, "being healthy" was selected as the first priority in four groups, three made up of older participants and one of younger participants. "Being happy with my life" was first among participants in three groups and "being

Table 29. Ranking of 16 Priorities by Focus Group Participants According to Sex, Race, and Ethnicity

	WHITE		BLACK		HISPANIC	
	Males	Females	Males	Females	Males	Females
Being healthy	1	1	2*	2	1	2
Being happy with my life	2	2	2*	3	4*	4
Being happy with my family	3	3	3	4	2	3
Having a good love life	4	10	8*	6	5	10*
Having enough money	5	7	5	5	14	14
Making and keeping good friends	6	4	12	11*	12	7
Enjoying my free time	7	9	11*	11*	11	11
Being close to God	8*	5	1	1	3	1
Getting along with others	8*	6	11*	12	10	8
Enjoying my job	9	13	8*	9	8	9
Having a good job	10	12	4	8*	6	6
Living a long time	11	15	7	10	9	12
A good education for my kids	12	8	6	8*	4*	5
Looking good	13	14	9	7	4*	10*
Becoming rich	14	16	10	14	13	15
Having children	15	11	13	13	7	13

*Tied
Note: White men are used as the reference group for ranking.

happy with my family" in one. "Making and keeping good friends" was the second and third priority in two groups of women and "being close to God" was selected as the third choice by older men in Richmond.

Whites also seemed to see all aspects of life relating back to a single priority, but there was no clear, consistent value like the importance of God that black and Hispanic participants reported. Whites noted:

> "If I'm not happy with my life, I'm not going to be happy with anything that goes on."
>
> "I value being healthy, because everything else falls in line when you're healthy."
>
> "My family is everything to me. If I don't have my family, I can't be happy."

HOW DO FOCUS GROUP PARTICIPANTS VIEW HEALTH AND SICKNESS?

To gain more insight into what the participants meant by "being healthy," the meaning of "health" and "sickness" were discussed with focus group participants.

THE MEANING OF HEALTH

Among all the focus group participants, the meaning of health was remarkably similar, with two common themes.

- Health incorporated both mental and physical and, for some, spiritual health.
- Good health was linked to the individual's ability to fulfill his or her role in life, "to function," and not to be a "burden."

For example, the participants stated "health" meant not having to endure pain or spend time and money on doctors. It meant having a sound mind and being able to function without help.

> "Healthy is being well in mind, body, and spirit."
>
> "Being healthy means to do things at work, with your family and friends. Being able to do the things you want to do."

One group of younger black men used mechanical analogies when talking about health. They referred to a healthy body as "a well-oiled machine," "like a car," and as able to "function 100 percent."

Many participants cited examples of people who had a disease or a chronic condition, but who were still "healthy."

> "You can have a disease and still be healthy. My mother has multiple sclerosis ... she's not in a wheelchair right now ... but she still has a healthy attitude toward life and toward her family. Some people wouldn't consider her healthy, but she is because of her attitude."

Being healthy was seen as important in order to carry out one's role in life, to work, take care of the family, or simply enjoy life. Men's responses often focused on being able to work and women's often on the need to take care of children. Many acknowledged that as one gets older, health becomes more of a concern.

In the view of the focus group participants, the issues of concern to this project (diet, exercise, and weight control) were not included in their definition of health. For example, several obviously overweight participants proudly noted that their doctors had given them a "clean bill of health." If they felt okay and their physicians did not advise them that their weight could be a problem, their minds were put at ease about their health. Another stated,

> "I'm healthy, but I'm not physically fit. Is that a contradiction?"

THE MEANING OF SICKNESS

For focus group participants, sickness usually meant not being able to function and, for some, being dependent on others.

> "What I think about is not being able to go to work, that's what I think of being sick."

> "I would feel twice as bad (being sick) because I feel that my children need me and my husband needs me."

> "Being sick means not being able to do for yourself."

For the majority of Hispanics, with the exception of younger Cuban American women, sick also included the feeling of sadness or unhappiness.

> "Being unhappy, suffering... your life is restricted in every manner...having the desperation of knowing you can't do things."

Some participants, mostly men, included conditions such as alcohol or drug addiction in their definition of sickness.

There was a notable absence of any discussion of symptoms in defining ill health. Fulfilling roles was clearly more important for this audience.

THE LINK OF HEALTH BEHAVIOR TO SICKNESS AND DISEASE

Participants were then asked, "How come people get sick?" and "What can you do to stay healthy?" In the minds of these participants, health behaviors were not seen as ways to reduce risks for chronic diseases. Instead, healthy habits were viewed as being the way to avoid relatively minor illnesses.

HEALTH BEHAVIOR LINKED TO SICKNESS

Not getting sick was viewed as something people have some measure of control over, but sickness was confined to communicable illnesses, such as colds and flu, or, among a few male participants, to something "personally controllable" like drinking too much. Maintaining healthy behaviors was viewed as the way not to get sick and to avoid acute illnesses. Eating right, exercising, getting enough rest, not "overextending," getting fresh air, drinking enough water, walking, and stretching were repeatedly cited as ways to stay healthy. However, only a few participants did these things, and, most important, these actions were viewed by participants as a way of avoiding common illnesses. Even the specifics of healthy eating, such as eating "low-fat,"eating less red meat, and eating a lot of carbohydrates fell into the general concept of avoiding sickness. There was also a repeated theme that healthy habits helped "keep resistance up" so "you wouldn't catch something," or, among a few, that if healthy habits were followed, disease would be less severe than in someone who did not take care of him- or herself.

DISEASE LINKED TO FATE AND HEREDITY

While participants felt they could exert some measure of control over not becoming sick, they felt chronic diseases were outside their personal control, because they were largely due to heredity and fate.

> "Heredity—some people come into the world with diabetes already."

> "One can maintain themselves, stay healthy all their lives, but if you're going to get a disease, it's inevitable."

> "Like diabetes is a disease, but it's inherited—it's genetic. I think 'disease' is something you have no control over, like cancer is another example."

> "Keeping myself healthy is something I can do; keeping myself free of diseases isn't always something I can control."

> "I think a lot of disease you inherit like diabetes. I don't think it matters (what you do) unless they've changed it, you're going to get it."

> "One you have control over (staying healthy); the other one you do not (getting diseases)."

HEALTH BEHAVIORS NOT LINKED TO DISEASE PREVENTION

While the focus group participants were correct to perceive that all disease is not preventable, they did not accept the potential role that diet and exercise can have in risk reduction, since the acquisition of chronic diseases is viewed as largely beyond personal control.

> "If you're going to inherit it (disease) from your parents, it doesn't make any difference what you eat. That's true."
>
> "We can take care of ourselves by exercising, eating well, taking vitamins and we may not know what illnesses run in the family. So we can do all the right things but there are illnesses that we can't control just by eating the right foods and taking care of ourselves."

Most focus group participants did not perceive a broad association between healthy lifestyle habits and measures of health status or management of chronic conditions. A link between weight control and diabetes and hypertension by some participants is discussed later in this chapter.

Only one participant, an older white woman from San Jose, understood the role of behavioral risk factors in preventing chronic diseases.

> "If you know your family has a history of heart disease, then you have the opportunity to maybe control your life by not eating fatty foods."

CONCEPT TEST REVEALS BELIEFS JUXTAPOSED TO THE FACTS

In four focus groups in Richmond, two groups of white men and two groups of black women were shown an informational "concept" that stated the link of behavior and chronic disease. Hand-outs were distributed that said: "To reduce your chances of getting heart disease, you can exercise; eat a low-fat, high-fiber diet; not smoke; and maintain ideal weight." The same behaviors were repeated as a way to reduce chances of getting cancer, stroke, and diabetes.

The consistent response from participants was that the information conveyed was familiar, "old news" — even when they had not raised such relationships before in the group discussion. Even though they professed the knowledge, it was not being reconciled with the strongly held belief that disease is largely outside personal control. The straight informational approach that was tested appeared to allow the juxtaposition of beliefs and facts, without raising any apparent internal contradictions for participants.

IMPLICATIONS FOR HEALTH COMMUNICATION PROGRAMS

The focus group discussions regarding perceptions of health yielded particularly rich findings and insights into how health and health behaviors are viewed by lower SES groups. These findings have important implications for the effective communication of health information to this audience.

Although this audience has often been described as fatalistic concerning health, the strength of the belief that disease is hereditary was striking in these focus groups. This belief in the inevitability of disease can clearly stand in the way of fully grasping health promotion information and may well be a partial explanation for more limited adoption of healthy habits among this audience. If one does not truly believe that he or she has any control over health, messages assuming that belief are not likely to be understood, viewed as personally relevant, or acted upon. In concept testing, information showing the link of behavior and chronic disease appeared familiar, but was not powerful enough to penetrate the perception that disease is largely outside personal control.

To date, health communication programs have not confronted this point specifically. But since it appears to be so widely held, it is important to do so. One point that could be developed and tested in future communication programs would be to acknowledge a strong role for family history in the onset of disease and show how behaviors can help make the best of one's health inheritance. A link to family could be further made by appealing to parents to adopt healthy habits to "improve your children's health inheritance," recognizing the social, as well as biological, influence that families have on health.

A second important finding with implications for health messages is the clear priority that blacks and Hispanics place on being close to God. This finding was one of the few clear and consistent differences from whites that became evident in the focus groups. The belief and reliance on God as the source for all things may be one reason for the view that disease is not something "you can do much about." This view certainly warrants examination as an important factor in the communication of health information to blacks and Hispanics. Incorporating these concepts in health communication messages would need to be done with great sensitivity and respect for personal religious beliefs.

It has also been stated many times that the hard to reach postpone treatment of conditions until illness is very severe. Lack of access to health care is most often cited as the reason for this. It is also possible that some in this audience do not perceive the need for health care until they are unable to fulfill their roles at work or in the family. The feeling predominates that if a threat is not seen or felt, it does not exist. To overcome this feeling, health communication programs may need to incorporate information about the effect of practices on the body now, and how the threat to health can increase over time. Programs also need to address the presence of disease despite the absence of symptoms and the importance of detecting problems before they have a chance to develop.

DIET

To gather information about the dietary and physical activity patterns of focus group participants, each person was asked to describe a "typical day" with an emphasis on the habits being examined. For dietary habits, this also provided an opportunity to learn about the context of eating, how food choices are made, and how participants feel about the role of foods in their lives. It is clear that, among these participants, convenience is one major consideration in selecting foods and that traditional eating habits have been supplanted by snacking and grabbing foods.

EATING HABITS

In the 24 focus groups, eating three balanced meals a day was clearly not the norm among participants. Only a handful of the 202 focus group respondents still prepared or ate three meals a day. The "cook" was the person responsible for feeding the family, but often did little cooking. For example, many cooks commented that they might pick up fast food on the way home from work for the children, then later microwave frozen dinners for themselves and their husbands.

Across the country, respondents tended to eat similar foods and eat in similar patterns. Typical eating patterns are described below.

"SKIPPING BREAKFAST"

When asked what they ate on a typical day, a number of focus group respondents said, "I skip breakfast," but actually meant that they do not sit down at home and eat a formal breakfast. Many pick up fast food or eat a doughnut and coffee at work.

> "I don't have time to eat breakfast at all. When I get up, I've got to just about start running out the door—so I might catch some coffee and a doughnut off the coffee truck at work."

> "I eat breakfast in spells—it depends on my other half. If she gets up and goes to work at 5 a.m., I miss breakfast."

> "I rush every morning trying to get myself and everybody off to work, so I stop at Dunkin' Donuts and have a doughnut every morning during the week."

> "I try to eat something chocolate to get motivated, because I like that sugar rush... anything that gets me going, like coffee along with a candy bar."

> "Sometimes my son and I decide we want ice cream for breakfast. I put vanilla extract and sugar over ice cream. It's good and gooey. He doesn't like to eat breakfast, but he'll eat this."

> "I get up every morning about 6:30 and stop at a restaurant on the way to work and get pop, cookies, doughnuts, whatever...eat junk from 7:30 in the morning till noon, then I have lunch."

LUNCH, JUNK, AND FAST FOODS

Among all participants, sandwiches were the lunch of choice with doughnuts as a popular lunch favorite for respondents in four focus groups.

All of the 25- to 44-year-old groups, with the exception of younger Mexican American males in San Jose, reported a love of what they called junk food.

> "I like a lot of junk foods, for example, potato chips, M&M's, I like all that stuff... for lunch I eat a pastry."

> "I like to get street food at lunch time, a sub or something."

> "I like pizza for lunch, with maybe a milk shake, large fries, and a couple of other snacks."

A few of the participants talked about how eating patterns today differ from those in the past and were aware that very different types of foods are now frequently consumed. An older black woman commented:

> "But the trouble with things today, we want to go to McDonald's, we want to go to White Castle, we don't know what it is to put on a pot of beans, we don't know what it is to put on a pot of greens."

SNACKING AND GRABBING FOOD

In the focus groups, snacking and grabbing food were reported often, and meals were frequently skipped. These irregular patterns were reported among respondents of all ages and races.

> "A lot of times I don't even eat supper. I work the swing shift and don't require too

> much sleep. Four hours is good for me, so I get up early in the morning, 5 o'clock or so. First thing I do is take a shower, then go tinker with something until I feel an appetite coming on… whenever it does."

> "I don't have a schedule. My job is somewhat on-call in that I have no scheduled hours. It varies. I just eat whenever."

> "When we crave something in the middle of the night, I'll get up and fix something, pastry or a cherry pie."

EATING ON WEEKENDS

According to focus group participants, weekends bring changes in eating habits, but the types of changes vary widely. Many respondents reported eating more on weekends or eating more balanced meals on weekends. Though some, often because of work schedules, reported no changes. Many participants reported eating bigger, sit-down breakfasts on the weekends, eating out with family and friends or, among blacks and Hispanics, eating Sunday dinner with relatives.

> "I tend to eat more on the weekends. After payday, you can afford it. I grill everything, cook outside, you really don't have a schedule so you can do that."

> "Every day seems the same to me because of my work schedule—Thursdays are just like Saturdays, it doesn't matter."

> "My Sunday morning is different. I make the 8 o'clock church service and then come home and make breakfast...we have time to cook then. We have sausage and eggs and potatoes."

> "On the weekends, we have a big breakfast. We have bacon and eggs and hashbrowns and toast, which I don't have time to cook during the week."

> "On Sunday you better believe it, when I leave church, which is not too far from my mother's house, I always go by and say hello to her on Sunday at least...you always go visiting on Sunday, you always got a mama, an aunt, or somebody."

SOME BLACKS SAW DIFFERENCES

When asked, some blacks felt eating has a different meaning for whites and plays a different role in white society than in black society. A young black woman commented:

> "We [blacks] want to get full. They [whites] eat because they need nutrition; we eat because we want to eat."

MANY REPORTED BEING CONFUSED ABOUT NUTRITION

Many participants in the focus groups were confused or "turned off" by the array of dietary advice available to them. Several men summed up the apparent conflicting dietary advice:

> "I think it's a bunch of malarkey."

> "Come on, man, they can't make up their minds what's right."

> "You see a medical article in the paper and six months later it's denied."

COMMERCIALS ADD TO CONFUSION

Participants often referred to television commercials and advertising as sources of information about nutrition, exercise, and health.

> "It seems to me you can't turn on the TV without seeing one of those commercials—that 2-hour Soloflex commercial and commercials about fiber, fiber, fiber."

> "Everywhere you go commercials and everywhere you look."

> "They say they want you to be healthy and work out. They want you to use Gatorade and when you work out they want you to use 'this.' So it's always take our product and work out."

MISCONCEPTIONS PERSIST

In the focus groups, participants expressed familiarity with "buzz words" and dietary "how tos," but frequently did not quite "grasp the correct concept." Examples of misconceptions abounded.

> "Cholesterol is basically the same as fat."

> "I skin my fish."

> "If a person dies at 55, they have something like 5 pounds of undigested meat in their system."

The news about low density lipoproteins (LDL) and high density lipoproteins (HDL) was a particular source of confusion for some who mistakenly thought "good" and "bad" cholesterol are found in foods.

> "The same thing with cholesterol and how they are saying low cholesterol can cause a heart attack. So to balance out what we have been told about cholesterol, we need to know that there are two kinds of cholesterol. We have been led to the slaughter."

Referring to food, participants noted:

> "There's two kinds of cholesterol. It depends on which kind."

> "There are foods that can counteract your cholesterol foods."

CONCEPT TESTS REVEAL PREFERENCE FOR A POSITIVE APPROACH

In four focus groups in Richmond, Virginia, white men and black women were asked questions that would lead to the development of educational materials and were presented with rough design concepts of ways to present information on changing dietary habits. The concepts were developed for the project, based on current dietary recommendations, and did not represent a diet supported by any particular agency or organization.

First, these groups were asked what they should eat on a daily basis to consume a healthy diet. Responses were vague. When probed for how many servings or what types of foods to eat, virtually all participants spoke in terms of the four food groups. Although this concept is viewed by many nutritionists as outmoded for explaining current dietary recommendations, it was the only framework available to these focus group participants.

Next, participants were shown two different approaches to conveying nutrition information.

- The New American Diet showed a variety of foods in the approximate proportion that is recommended and was described as follows: "The New American Diet is low fat, high fiber. Every day eat 5 or 6-1/2 cup servings of fruit and vegetables; 6 or more servings of breads, cereals, and legumes; about 6 oz. of protein for a 150 lb. person; and low fat dairy products for calcium." Figure 3 illustrates the New American Diet.
- A chart showing pictures of healthy main dishes, snacks, beverages on one side and their unhealthy counterparts on the other crossed out with the international NO symbol. The chart contained no words, but relied on pictures and the symbol to convey the information. (See figure 4.)

Virtually all participants preferred the New American Diet concept saying that it shows what foods to eat, makes clear the approximate quantity of what should be eaten, and associates what they saw to what they are currently eating. They found it more informative and compelling than the other concept.

> "I'm not the new American."
>
> "Tells me I'm not getting enough fiber, getting too much protein."
>
> "Tells us most of us are not eating a well rounded diet."
>
> "It tells me I don't eat enough vegetables right now."
>
> "I eat about three of those things once a week."

Black women found the information presented in the New American Diet believable, felt it was achievable, and affordable.

> "It looks like we should be able to afford to eat like that."

White men found the information believable, but felt they might have trouble following such a diet because of their food preferences or readily available food choices.

> "Eight (sic) ounces of protein, I eat more than that at a single sitting."
>
> "I don't think I could do it. I like gravies and beef stews."
>
> "Occupation has a lot to do with it. You may not be able to go to a certain place to get a specific type of meal."
>
> "I think it would be easier for the 75 percent who eat in than people who eat out. Your basic restaurant, their meals just don't cater to that."

Comments on the "Yes/No" chart were of a different tone, more focused on what not to eat than how to eat in a healthier fashion. This chart seemed to make some feel guilty about eating habits or feel the message was directed at someone other than themselves.

> "The message is you're a glutton if you eat all that."
>
> "It's poor eating if you eat it (the foods on the 'no' side)."
>
> "Stay away from fried foods and greasy snacks. Stay away from alcohol and caffeine. All the things everybody likes."
>
> "If it's good, you can't eat it."
>
> "That's (the 'yes' side) for a 100 percent health nut."
>
> "My only thing on there is my down fall, right over there in that corner (indicating soda). Pepsi Cola, I drink them every day."

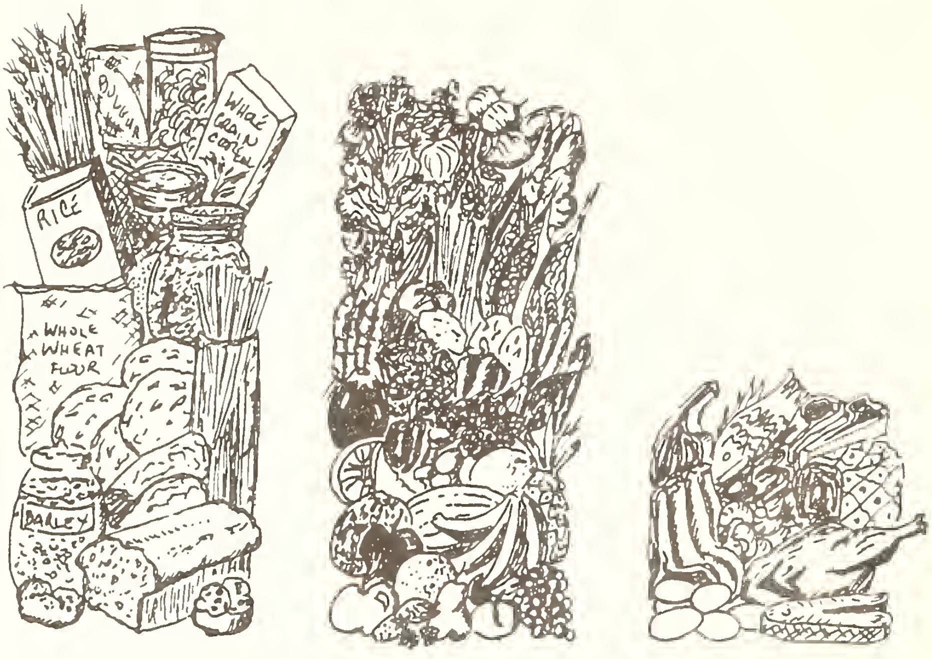
The white men also commented again on the easy accessibility of the foods that were crossed out with the international NO symbol.

> "The things on this (the 'no') side are a whole lot more accessible. Most of the time you can find them in any 7-Eleven store."

Compared to the response for the New American Diet, this message was perceived in a more negative fashion and was dismissed by some as not personally relevant.

Figure 3. "The New American Diet" Graphics Concept

THE NEW AMERICAN DIET IS LOW FAT AND HIGH FIBER.
EVERY DAY EAT:



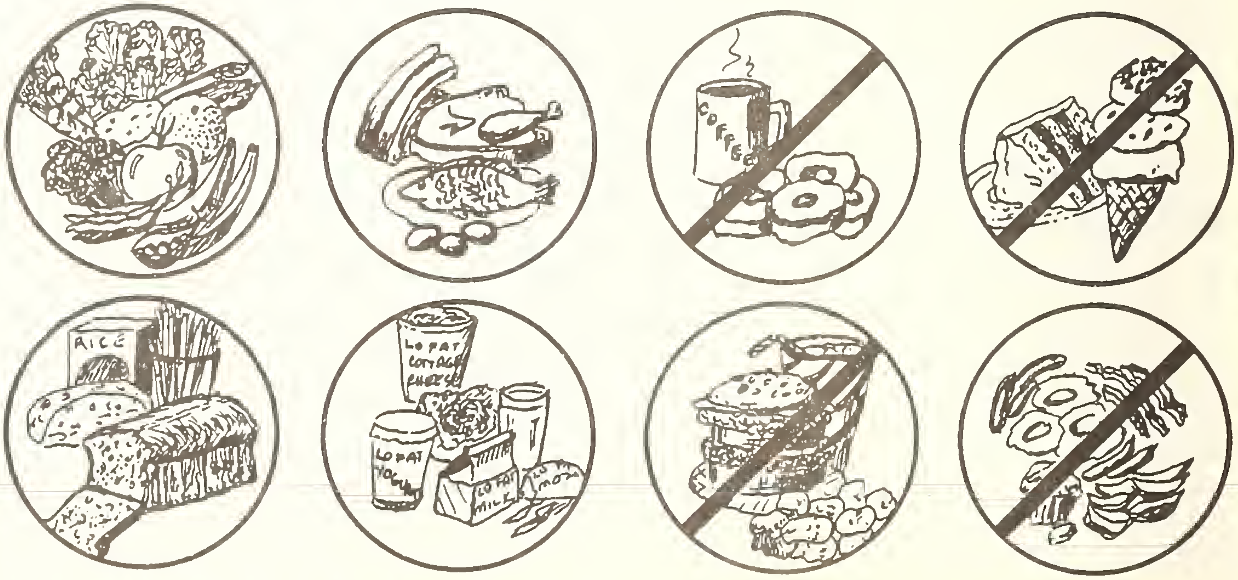
6 or more servings of whole grain breads and cereals

5-6 servings of fruits and vegetables

only about 6 ounces of protein for a 150-pound person

low-fat dairy products for calcium

Figure 4. "Yes/No" Graphics Concept



IMPLICATIONS FOR HEALTH COMMUNICATION PROGRAMS

It is clear from the focus group discussions that although there was familiarity with the latest dietary "buzz words," i.e. oat bran, good and bad cholesterol, participants were not familiar with the full scope of current dietary recommendations. They were not able to articulate what one should eat for a healthy diet. Some were turned off at what they perceive as years of conflicting advice about what is healthy to eat.

The focus group findings provide two types of direction regarding dietary messages. First, the groups provide excellent guidance that could be used to update and enhance existing programs so educational materials respond more specifically with the eating patterns and habits of this audience. In order to encourage "small changes" toward a lower fat, higher fiber diet, useful educational items include:

- tips on making healthier food choices at convenience stores — these tips could be particularly relevant for blue-collar workers who eat one or two meals a day from convenience stores or lunch wagons.
- promote lower fat choices that focus on foods popular with this population — instead of citing yogurt as a substitute for sour cream, focus on lower fat alternatives to doughnuts, pizza, Mexican food, and sandwiches.
- promote the wisest selections among fast foods — specify the lowest fat burgers and sandwiches or ways to reduce fat, such as scraping off sauce or mayonnaise that comes on many fast food sandwiches.
- promote the wisest choices among frozen and convenience foods purchased at the supermarket.

Second, and perhaps more important, a more comprehensive approach was suggested from the concept testing of the "New American Diet." The favorable, insightful reactions of participants made it apparent that perhaps the most beneficial, informative approach is one that "pulls everything together" and provides a sound conceptual framework for a healthy diet. When presented with the "whole picture," focus group participants appeared better able to personalize the information and grasp the relative proportions of types of foods to eat than when given an approach emphasizing foods to avoid. While men perceived it would be hard to follow, "the whole picture" concept did appear to overcome the belief, discussed later, that a healthy diet is too expensive for the audience.

PHYSICAL ACTIVITY AND EXERCISE

As with dietary habits, information on activity patterns was gathered in the context of what participants do on a "typical day." Like much of the U.S. population, the focus group participants were largely sedentary during leisure time and saw little association between exercise and health status. They also had many questions concerning the types and levels of activity that would be beneficial for them.

PHYSICAL ACTIVITY PATTERNS

Focus group members reported participating in a variety of activities in their spare time, most of them sedentary. For example, reading, visiting with friends, and watching television were popular pastimes. In general, being physically active was associated with daily activities or an active lifestyle, job demands, or participating in favorite sports. Only a handful participated in planned physical activities with the goal of getting in shape. Participants seemed very satisfied with their activity patterns and many participants believed they get adequate exercise through day-to-day activity, such as housework, home repairs, and playing with children.

> "I don't sit down very much. I carry the laundry to and from the house, or I walk around the house carrying the kids. I just don't sit."

Overall, more men than women felt they get adequate physical activity from the physical demands of their jobs. However, some women were occupationally active too.

> "I probably get most of my exercise from my job, because I do a lot of sheetrock work along with painting, and that's really physical."
>
> "I put about 5 or 6 miles a day on the job just walking. Bending and walking, and a lot of lifting, rolling 5 or 6 hundred barrels. It's heavy. I don't need exercise. I get enough."
>
> "I clean and take care of people as an LPN, so most of my day is spent standing up."
>
> "I work making cookies and from where I make them to where I have to take them, I have to walk a lot. So I spend my 8-hour day walking."

A few blacks perceived whites to be less active on the job.

> "The average white doesn't do anything but sit at a desk all day while you go out and do physical work which is good for the body."

Black and Puerto Rican men of all ages in the focus groups were more likely than other respondents to participate in active sports.

> "My hobbies are strictly athletics, playing basketball with the fellas."

> "I like to lift weights for physical activities."

> "I love basketball, and all kinds of sports. I get involved in touch football too, but basketball is my number one sport."

Some reported "slowing down" with age.

> "A few years ago I played basketball, but I stopped as the ball got faster and I got slower."

GEOGRAPHICAL INFLUENCES

Among focus group participants, the region of the country in which they live appeared to have an important influence on how active people are. Participants in California, Texas, and Florida reported more physical activity, both planned and incidental, than did their counterparts in Illinois, Virginia, or Maryland. The "outdoor" lifestyle and warmer climates yielded these comments:

> "I work in my garden, I go horseback riding, we go dancing and to the beach."

> "I go to the park a lot and play ball. I also attend to my yard and help friends with theirs."

> "I play volleyball about once a week. Plus I ride my bike in the afternoons and sometimes in the evenings, too."

A change in geography, and consequently in lifestyle, led several older Cuban women to note that when they were in Cuba, they got much more exercise from walking than they do in the United States.

> "When I came to the United States I gained a lot of weight, because in Cuba, people walk a lot. No one has cars. I walked about 200 blocks daily."

VIEWS ABOUT EXERCISE

Focus group participants described physical activity in connection with work, daily chores, and leisure activities. However, exercise was seen as something different. Exercise conjured up images of calisthenics, health clubs, gyms, exercise equipment, and sweat. In the minds of some participants, exercise was viewed as an exclusive and time-consuming activity. This view, compounded with the perception that the benefits of exercise are primarily cosmetic, led some women to say that it is out of their reach because it would take time away from family responsibilities.

Many were confused about the amounts and types of activity that can provide benefits. For example, how much walking was needed "to be good for you" was frequently asked.

Participants in the focus groups did not link exercise or activity with the prevention of chronic diseases. Some appeared to understand the relation of inactivity to weight gain, including one woman who reported gaining 14 pounds while spending a 1-week vacation at home eating and watching soap operas.

CONCEPT TEST REVEALS MIXED FEELINGS ABOUT BENEFITS OF EXERCISE

Participants in four focus groups were shown a list of ten statements about exercise and were asked to indicate the two that best fit them personally (figure 5). In all four groups, which included black women and white men, the participants selected:

- Exercise makes me feel better.
- Exercise makes me look good.
- Exercise is boring.

Participants had very mixed reactions to the subject of exercise, reflecting a range of beliefs and habits.

> "Exercise is boring, and I don't have time to exercise even if it wasn't boring."

> "I do walk quite a bit and when I walk, I feel better."

> "You didn't have in here [among the list of statements] a lack of motivation."

IMPLICATIONS FOR HEALTH COMMUNICATION PROGRAMS

Participants perceived the general idea that exercise was "good for you," but had minimal understanding of what or how much to do. They indicated they would like to know what exercises were safe and "for them." They wanted to know which exercises build strength and how to warm up and cool down before and after an exercise routine.

For most focus group members, exercise was not seen as a means to reduce risk for chronic disease or to manage chronic health problems. How such health factors could serve as a motivator could not be determined and needs study.

Unlike with diet information, there was not a sense among participants of being overwhelmed with conflicting advice regarding exercise and health. This finding could mean that the audience would be receptive to messages on this subject.

In concept testing, participants cited barriers such as lack of peer and environmental support but also suggested motivators such as "looking better" and "feeling bet-

Figure 5. Exercise Statements

1. *My body is like a machine. Exercise keeps it in tune.*
2. *Exercise gives me the competitive edge.*
3. *I do not like anything that makes me sweat.*
4. *Exercise makes me feel better.*
5. *Exercise makes me look good.*
6. *Some people should not exercise.*
7. *On the days I exercise, every move I make seems easier.*
8. *No diet ever worked for me until I started to exercise.*
9. *I do not have time to exercise.*
10. *Exercise is boring.*

ter" that could be used to encourage exercise.

The consensus that "exercise is boring" is another barrier posed by participants. If regular physical activity that could be undertaken as part of the daily routine was recommended, and it didn't require "taking out" time for a repetitive activity, perhaps exercise would be considered less boring.

Acting on the directions provided by the focus groups requires a resolution about the types and amount of exercise and activity to be recommended to the public as having health benefits. As public education messages are developed, several issues will need clarification.

- In which areas is the research base firm enough to make recommendations to the public regarding the health benefits of physical activity?

- What level of physical activity is most appropriate to recommend? Can increased activity at lower levels of intensity be encouraged? Is aerobic activity the only acceptable health message?

- To whom should the messages and programs be targeted? Although exercise increases with education, participation is quite low throughout the population. Should information be targeted to the hard-to-reach population or to the general public?

- What types of collateral activities will be needed at the State and local levels to encourage physical activity?

- What agencies and groups could come together to plan and carry out ongoing communication and programs to encourage physical activity?

WEIGHT CONTROL

Among focus group participants for this project, at least half of the group considered themselves heavier than average, one quarter considered themselves about average weight, and one quarter considered themselves thinner than average. Like many Americans, their idea of maintaining body weight was tied to the notion of "going on a diet" to "lose weight." Participants in the focus groups expressed little specific information about the best way to lose weight and keep it off.

PERCEPTIONS ABOUT WEIGHT CONTROL AND HEALTH

The primary health impact of weight control expressed by most participants was the generally vague perspective that they felt better when they weighed less.

> "I'm at my best between 110 and 112. If I get over 112, I begin to feel sluggish and heavy and I'm uncomfortable."
>
> "When I lost that weight I felt so much better...I lost about 40 pounds one time."
>
> "You feel better and have more energy, I think, if you go on a diet."
>
> "I recently lost 13 pounds and I feel a lot better mentally and physically. I want to lose 13 more."

Most participants had difficulty separately notions of weight from their perception of health in general, that is, if they couldn't see or feel anything wrong, then they were healthy.

> "It's all right for me to be fat just so long as I don't smoke."
>
> "Nobody's ever told me that if I lost weight, I would be healthier, because there is nothing that they can find in any of my physicals that says there is anything wrong with me ... my doctor says 'you might feel better and have more energy' ... but I have all the energy I need."
>
> "With some people, it's okay [to be overweight]."
>
> "I have seen and known fat people who are healthy and thin people who are not healthy. Seventy-five percent of it is heredity."

Hispanics, however, did link weight control to diabetes, and several black male participants reported that weight control could be used to control high blood pressure.

But, for the most part, weight control was not linked by participants to potential improvements in health status measures. Rather it appears to be related to deeply held views about what constitutes attractiveness, especially to the opposite sex. Hence, perceptions of what was appropriate varied. Some black men viewed excess weight as slowing them down, making them less able to compete with younger men and less attractive to women. However, older Hispanic men and women seemed comfortable with excess weight, viewing it as appropriate and acceptable for them, a natural part of aging.

VIEWS ABOUT WAYS TO LOSE WEIGHT

When asked to give advice to a friend who needed to lose weight, focus group participants were able to come up with many reasons for doing so. Being overweight was associated with being unattractive, not going out socially, and not feeling your best.

> "I would tell you that you are very pretty, but if you lose weight, you will look better and men will like you better."
>
> "I would tell you that it's not good for your health to be overweight, that you would look and feel better, and that it would be better for your health."
>
> "I would tell you if you lose weight, we can take trips together ... don't go nowhere fat."
>
> "Girl, you're looking bad."

When asked to advise a friend on how to lose weight, a few participants made the link between increased activity and eating less.

> "I would tell you to change your diet and also to get up and move."

Most advice, however, was fragmented, such as "go to a weight loss clinic," "cut out sweets," "drink water," "go vegetarian," "just push back from the table after one plate," "don't lay down after a meal," "don't eat late at night," "eliminate alcohol," and stay "off fattening foods." Concrete and substantive rationales for how to control weight were lacking, and specific, personal examples of how to manage the related behaviors of diet and exercise were not given.

The relative merits of various commercial weight loss programs were the subject of much discussion. Some participants were skeptical of commercial weight loss programs.

> "You've got to lose the weight on regular food that you eat. This liquid stuff is not going to keep it off, it's going to come back."
>
> "We don't want any quackery."

Some noted that the expense of commercial programs was beyond "people like them."

> "Not everybody who's overweight is going to be able to afford stuff like that—people on welfare, disability, SSI. They dieted, they can't seem to get the weight off, and they don't have the money to go out and spend $185 to lose all the weight they want."

Many of the most overweight participants said very little about their own weight loss experience, perhaps indicating the sensitive nature of this issue for them. However, several expressed frustration over the failure of their own efforts.

> "I've been eating 800 or 900 calories a day and can't lose a damn pound. Now you show me why."

Recent publicity about the role of metabolism in weight control was a source of confusion.

> "How can I change my metabolism? I think metabolism is heredity."
>
> "I personally think the doctors can change your metabolism rate temporarily until you lose 100 pounds, but then when you get down there, they don't know if they can reverse it again to keep you from going down another 100 pounds."

IMPLICATIONS FOR HEALTH COMMUNICATION PROGRAMS

The information from focus groups regarding weight loss is suggestive of educational approaches, but not as specific as that gleaned on the subjects of diet and exercise. That may be due in part to the lack of perception of the importance of weight control to health, the sensitivity of the topic among overweight participants, and the lack of understanding of how to achieve and maintain weight loss.

Among focus group participants, half of whom felt they were overweight, a health rationale for weight loss seemed to be lacking. The issue for communication programs may well be the need to create awareness of the concept of a "healthy weight." One area worthy of further investigation is the extent to which improved health status indicators, such as lower blood pressure, could provide an incentive to people to achieve and maintain a healthy body weight.

The difficulty experienced in the discussions of weight control, however, suggest that the topic of weight loss be approached with caution in planning public education programs. It may be possible for communication programs to build on demonstration efforts with the obese which have yielded rich information about effective techniques for helping people adopt and maintain sensible approaches to weight loss. A clear challenge is how this type of information and approach can be applied in a broader context.

RELATIVE RISKS OF BEHAVIORS

Participants in 11 focus groups were asked to rate how they thought they were doing on the actions they had listed as ways to stay healthy. They rated themselves on a scale of 1 to 10, with 10 being "I'm doing great" and 1 being "I'm doing terribly." Aggregate scores for the groups ranged from 4.2 to 7.6. There were no clearly discernible patterns based on race, sex, age, or geography, although this task was completed by less than half of the focus groups.

Participants rated themselves fairly highly if they only had "one or two bad habits," such as smoking, eating fast food frequently, or not exercising. Those who rated themselves very low—a one or two—claimed to have all these habits and more. Male participants were more apt than were female participants to cite smoking, drinking, or "partying" among their "bad" habits.

A common theme did emerge: people made "deals" with themselves about "trading off" among unhealthy behaviors. Some smokers claimed they were "perfectly" physically fit, because they exercise even though they smoke. Others had given up smoking but frequently indulge in sweets. Still others exercised in order to be able to eat what they want.

> "It's all right for me to be fat, just as long as I don't smoke — that's absolutely true."
>
> "I ride my bike everyday — to Baskin-Robbins for ice cream."
>
> "If you eat right and eat the proper food and you cook right, then you can smoke till the days get long, it's not going to bother you."

RELATIVE RISKS NOT UNDERSTOOD

To gain a better sense of how people might assess and rationalize such trade-offs, the four Richmond groups were asked their assessments of the relative risks associated with smoking, eating a high-fat diet, cholesterol in the diet, and being overweight. For example, they were asked, "Which do you think is more harmful to your health—smoking or being overweight?"

It did not appear that participants had ever looked at these behaviors in relation to each other. In general, though there was some disagreement: White men perceived that all the behaviors were "bad," but also were eager to defend someone's "right to be a slob" and engage in such behavior. Black women viewed smoking as more harmful than being overweight. The fact that some people gain weight when they quit smoking and that "doctors tell us" smoking is bad apparently led to a conclusion by some that gaining weight must not be as bad as smoking.

IMPLICATIONS FOR HEALTH COMMUNICATION PROGRAMS

While participants appeared to make trade-offs and deals with themselves, those deals did not appear to be based on health information. Rather, participants used a series of rationalizations and trade-offs to justify personal habits. Though communicating the concept of relative risk is complex, a starting point might be in acknowledging these trade-offs and showing how that can be done based on scientific evidence rather than personal beliefs or misconceptions. However, this suggests that individuals would accept scientific evidence into their belief system, which may not be feasible. Another barrier may be the lack of scientific consensus on the relative risk of health behaviors compared to each other, which would be necessary in shaping health messages.

CHANGING HEALTH BEHAVIORS

While discussing diet, exercise, and weight control, participants were asked what would make it easier for them to change their practices and what stood in the way of change. They were asked specifically about the role their families could be expected to play in changing health-related behaviors.

Some participants said that they are content with the status quo, and that nothing would make them change. Others felt strongly they wanted to "do better," but are unsure exactly what that means or how to go about it. All acknowledged that changing lifelong habits is difficult.

WHAT STANDS IN THE WAY OF CHANGE?

Focus group participants cited a variety of reasons for continuing behaviors that they appeared to know are not the best for them. Lack of time and money, lack of family and environmental support, lack of willpower, and "just plain laziness" were cited. For example, reasons given included:

> "Money. You can't necessarily afford to change to eat the proper foods."

> "Education and environment. Being educated, one can afford the finer things in life or being in a place where you can get the proper exercise."

> "The area you live, your neighborhood, the area where you hang out. The circumstances you put yourself in."

Food preferences were seen as particularly hard to change by some.

> "I like the food I eat and I have no intention of changing."

> "If I can't have all these types of foods that I love, then I really don't want to exist."

> "I eat a lot of sweets. I know it's not good for me and it makes me gain weight, but I can't seem to pass it up."

The perception that eating a healthy diet is expensive was especially strong among the focus group participants. Some participants cited, for example, that fast food restaurants are cheaper than others. However, others gave examples from advertising that have made them incorrectly believe that healthy food is more expensive to eat than unhealthy food.

> "If you're sick and tired of cooking it's cheaper to go to McDonald's or a Burger King or a sub shop. If you're poor, it's kind of hard to take a family out to a good meal, so we end up in places like that."

> "The best cereal products on the market are these high fibers with nuts and raisins. But Cheerios are only $1.99."

> "Time and money — it's like when you go to the grocery store, here's plain old Kellogg's cereal which is $1.29, and here's this special stuff they're advertising on television which is really great for you and it's $4.50 a box. So money plays an important part — you can't afford to be healthy sometimes."

Many respondents claimed that they feel good the way they are, and that until they start to feel bad, they see no reason to change. There was no force to drive them to surmount the barriers of time, money, and willpower.

AGE MAKES A DIFFERENCE

Some people said they were making changes because they are getting older or thought they would change later as they aged.

> "I think our metabolism changes quite a bit as we get older. From childhood up, I could eat almost anything at any time of the day. I wouldn't dare do that now."

> "I'm sure I will change when I start getting older, and these things start bugging me. I mean, I plan to quit smoking eventually."

> "When I was a kid and living at home my mother used to cook all this great spicy food ... she retired and moved to Florida and now she's on a health food kick. She has really changed her eating habits over the past 20 years."

FAMILY SUPPORT VARIES

Participants were asked how their families would react to a change in their eating or exercise habits or if they decided to lose weight. The level of family support they would expect reportedly varied by the type of change being attempted.

EATING HABITS

Many agreed that if they asked their families to change their eating habits, they might not get their participation, but they would have their support.

> "My wife is the one who would try to control mine and the kids' eating habits and give us what is better for us ... she already made us change to whole wheat bread."

> "My husband would change, because I would convince him it's for his own good."

> "My wife would do it ... when she fries chicken now, she bakes mine. So I know she would do it for me, if not with me."

WEIGHT CONTROL

Regarding family support for weight control, responses were mixed. Men (excluding younger white males in Chicago who claim their wives' reactions would be shock, disbelief, or laughter), for the most part, strongly and quickly responded that their wives would support them and that they would, in turn, be very supportive of their wives' weight loss attempts.

> "My wife and I look to each other for support. When she goes on a diet, I support her, and when I need something, she supports me."

Many women had a slightly different view. White and black women felt they might get some support, but were unlikely to get their husbands or boyfriends to participate and were also likely to have their efforts sabotaged.

> "Bill would be the first to say, 'You're going to get sick, your resistance will go down, you're going to get so thin, you're going to catch everything' ... he's against it, he really is."

> "My husband will help me with it ... then when I start talking about putting on that cute little dress he doesn't want me to wear, he'll go out and buy ice cream and sabotage me."

Notably different were the comments of Hispanic women who said that their husbands almost always support or participate in weight loss efforts.

EXERCISE AND PHYSICAL ACTIVITY

Focus group participants thought it would be difficult to get the family to participate in regular exercise.

> "Eating habits would go over fine. Exercise would go over like a lead balloon...my husband likes the sofa too much."

> "I don't think it would go over too great. My father bought my brother and I an exercise bike for Christmas two years ago, and it has seven miles on it now."

> "My household would laugh. They'd say here's the alarm clock, we'll see you when you get back from your run."

SOME WIVES DON'T KNOW HOW TO HELP

Some wives concerned about their husbands' health expressed frustration about how to aid them in developing healthier habits.

> "I lecture him, not to be a nag but only to look out for him because I would find he's not doing a good job...even his own doctor said, 'Look, you've got to get rid of this (weight)', but it seems like men don't take things as seriously as women do."

> "My husband, if I get on him about anything—his health or anything like that—he has a fit."

> "They (men) don't take care of themselves, they really don't."

WHAT WOULD MAKE PEOPLE CHANGE?

When pressed for what would make them change, participants noted it would take a drastic event, something to scare them into changing.

> "If I had a heart attack, or stroke, maybe I would make that 180 degrees turn on my lifestyle that I'd have to make."

> "A death in the family, something drastic like that...if my doctor said, 'Change your eating habits and get more exercise, or you'll die,' I'd probably have to change my ways."

> "If the doctor told me I was going to die next week unless I changed, then I would change."

> "A scare would get me to change—either a friend having a heart attack or television ads and statistics."

However, when asked to elaborate on the specifics of what might prompt them to change, the participants moved beyond scare tactics.

> "They have to advertise the way they do cigarettes—show the benefits of exercising and what happens if you don't."

> "A lot of this (what you do to stay healthy) is based on lack of knowledge. I don't think it's as effective as it should be; we (need to be) more educated going in."

> "So we have to be educated to make our bodies healthier to the point we make a conscious decision to eat better."

AN ACKNOWLEDGMENT THAT CHANGE IS DIFFICULT

Many focus group participants expressed frustration at exactly what to change and how to change. At the heart of this was the acknowledgment that change is difficult and requires substantial knowledge and commitment to be successful.

> "You really have to decide to change your lifestyle. It takes a lot of willpower, and you really have to make up your mind that this is what you want."

> "If you've got lifetime habits, re-educating yourself to a different set of eating habits is time consuming. It takes a lot of education and learning to change that, and that's our biggest problem."

> "It has to be within the inner person to come to that decision that they want to have a better life, they want to look better, they want to feel better and they want to be better. When they have a made up mind to do this and be consistent in doing it, not through being shown, because we're shown everyday through advertisements, but it still has to be your decision to do it for you."

DESIRE FOR PERSONAL ATTENTION AND SUCCESSFUL ROLE MODELS

Black and white participants often mentioned without prompting the desirability of a support group for learning and maintaining new behaviors. Alcoholics Anonymous (AA) was most often cited as the most appropriate model. AA was seen as better than commercial weight loss groups which were viewed as costly and seen by some as embarrassing to participants.

> "I would go where people are successful, like an AA type of organization. They make you believe in yourself and maybe that would work."

> "If somebody had a group support program, like a new kind of healthy cooking, and you could get eight of your friends and all get in the kitchen and learn how to cook in a different way, a different cuisine, then you could have fun doing it."
>
> "I understand these AA groups really help people, they don't humiliate them...maybe that would work."

Hispanics did not mention groups as a possible means of learning health behaviors, possibly because of the lack of a model for self-help groups in Hispanic communities.

Many participants said they would like to learn from someone who had been personally successful at changing behavior. They wanted to learn from someone "like them" who made change seem realistic and achievable, not "these skinny little things on TV."

IMPLICATIONS FOR HEALTH COMMUNICATION PROGRAMS

In many ways the focus group participants showed great wisdom regarding the difficulty of changing lifelong habits. They also had a realistic grasp of external influences that work against behavior change, such as dangerous neighborhoods or the lack of education. These issues lie outside the realm of health communication to address effectively. However, participants also acknowledged the need to "re-educate" yourself to get to a point of making a decision to change, cited misconceptions based on commercial advertising, and spoke of feeling that healthy habits are exclusive and expensive to engage in. These are areas in which health communication can play an effective role in helping people understand the "what," "why," and "how" of health behavior change.

Many participants said they would need to be shown, in small groups and through personal example, how to achieve health behavior changes in their lives. This indicates a need for creative programming at the community level but also suggests some possibilities for demonstrations using support materials and role models to reach larger numbers of people. A few ideas are:

- A weight-loss clinic could be broadcast over local stations and viewers could participate.
- A series of home parties could be developed and promoted through various community health, social service, and community channels. Similar in some ways to the USDA Food and Nutrition Services programs, this model might not be able to rely on trained nutritionists, but would be more a do-it-yourself program promoted to the public.
- Model "church suppers" complete with recipes for home kitchens could be developed to stimulate or reinforce change.
- Videotaped material could be tailored to specific audiences, made widely available through commercial outlets or public libraries, and promoted in the media or in schools. This material could reach many in their own homes and, if tapes could be copied, viewed many times.

In addition to the need for support and personal demonstration, the focus groups raised other issues of importance to selecting communication approaches that will appeal to these audiences. Participants mentioned being scared into change, but unlike their spontaneous requests for "how to" information, statements about being scared into change came only when pressed on the issue. When describing what constituted effective communication on these issues, participants did not suggest "scare tactics." Caution should be exercised before adopting a fear arousal approach to be sure it is the most effective means of reaching the audience. In an educational program, it might be difficult to maintain the depth and emotional impact of a scare coming from the death of a loved one or from a personal "brush with death." Also, the fundamental belief that many hold about the role of heredity in chronic disease makes it seem unlikely that a message linking dietary or other changes to prevent cancer or heart disease would be fully accepted. At a minimum, because of the audience's desire for personal examples, more information about the extent to which those who have had a scare have changed behaviors would be helpful in planning and executing a fear arousal approach.

CHAPTER SIX

COMMUNICATION CHANNELS

This section of the report describes some of the available channels — mass media and community-based organizations — for communicating health information to lower SES audiences. It contains data from the Simmons Market Research Bureau, Inc. (Simmons) about which print and broadcast media are most popular with the target population, as well as their participation in civic affairs and organizations. Information from the focus group discussions about participants' views of credible sources of health information are also included in this chapter.

The focus of this section of the report is primarily on the national channels available for health communication programs. It does not contain an exhaustive list of the outlets for information and programming that may be available at the local level. In the development of communication strategies, a review of program experiences and expert opinion are recommended to help bridge the gap from the national data to the community, to help identify how channels of health information function at the local level and how people use information from multiple personal and institutional sources to make decisions regarding their health.

The analysis is also limited by the constraints of available data sources. For example, many ethnic newspapers found in neighborhoods across the country may be excellent channels for communicating with segments of the study population. Their readership could not be determined, however, because they are not contained in the Simmons database.

SIMMONS MARKET RESEARCH DATABASE

The data used for the analysis is from the Annual Study of Media and Markets, conducted by Simmons, which is used by commercial advertisers to make marketing decisions. Simmons uses survey research techniques to collect data about media audiences, use of particular brands and products, and the demographic characteristics of respondents. The study also collects data on the psychographic characteristics, hobbies, recreational and leisure activities, and buying habits of respondents.

Each year, Simmons surveys a national probability sample of approximately 19,000 persons over the age of 18. In this section of the report, Simmons data on television, radio, and magazine use are reported, as well as membership in community and civic organizations. For this project, the Simmons data used were for

1) the total population, ages 18 and over;
2) white, black, and Hispanic adults ages 25 to 64; and
3) white, black, and Hispanic adults ages 25 to 64 with a high school education or less.

Education was selected over income as the key variable since it is considered to be the most accurate overall measure of SES with the Simmons sample.

MASS MEDIA

For each medium, three types of information are reported.

- Percent of the media audience composed of persons ages 25 to 64. For example, 45.2 percent of the religious radio audience is ages 25 to 64 with a high school education or less.

- Percent of the population 25 to 64 years of age covered or reached by a particular medium. For example, 3.3 percent of adults ages 25 to 64 with a high school education or less listen to religious radio.

- An index calculated by Simmons. The index is a ratio of the proportion of the media audience composed of a given population segment to the larger population. The index is expressed as a number above or below 100. Below 100 means less frequent usage and above 100 means more frequent usage. For example, 41 percent of the adult population is aged 25 to 64 with a high school education or less. The index for religious radio is 110 (45.2/41=110).

The three numbers highlight different aspects of media usage that can be factored into plans for reaching an audience. In examining all three, informed decisions can be made on which media best match communication program objectives. As the example given above illustrates, religious radio, with its 3.3 percent coverage of those ages 25 to 64 with a high school education or less, could be an appropriate dissemination channel teamed with many others; but if used by itself, would only reach a small percentage of that audience. That point would have been missed if only the audience composition data are used.

TELEVISION VIEWING

Simmons data on television viewing are presented by type of show, for example, drama or news, and by day part, for example, weekday or weekend, daytime or prime time. The data were collected in 2-week diaries of personal viewing. Data on average half-hour network audiences are presented here.

Figure 6 shows the composition of the television audience, ages 25 to 64, and the percent of that audience with a high school education or less. Adults ages 25 to 64 with a high school education or less were 41 percent of the Simmons sample. At certain times of day for certain show types, they made up a percentage of the television audience higher than 41 percent. They made up to 45.6 percent of the special feature film audience and 45.0 percent of the daytime drama (soap opera) audience. At other times, they composed a smaller segment of the television audience, making up 37.0 percent of the weekend early evening news audience, 38.0 percent of the weekday early evening news audience, 39.4 percent of the weekend documentary/news audience, 36.3 percent of sports specials audience, and 39.1 percent of the weekend sports audience. For other types of programming, especially in prime time, their percentage of the television audience is close to their percentage in the population.

Figure 6 provides an overview of viewing by adults with a high school education or less. The viewing habits of white, black and Hispanic adults are described more fully in tables 30 and 31. Table 30 shows the types of television shows that reach 25- to 64-year-olds at various times of day. Of adults with a high school education or less, prime time shows reach from 7.5 to 9.9 percent, with feature films reaching a slightly higher percentage of whites (10.1 percent) and Hispanics (9.4 percent) than blacks (9 percent), and documentary/news shows reaching a higher percentage of whites (10 percent) than blacks (8.8 percent) and Hispanics (8.3 percent). Adventure shows reach more blacks (8.6 percent) than Hispanics (7.6 percent) and whites (7.3 percent) and suspense/mysteries reach 10 percent of blacks, 6.8 percent of Hispanics, and 8.1 percent of whites in the target audience. During the daytime, drama reaches many blacks in the target audience (5.6 percent) and 4.4 percent of Hispanics and 3.8 percent of whites. Weekend sports reach more blacks (3.2 percent) than whites (2.5 percent) or Hispanics (2.4 percent). Weekday early evening news, a popular format, reaches 7.7 percent of blacks, 7.6 percent of whites, and 5.7 percent of Hispanics. While most programming reaches more adults with a high school education or less than others in that age group, daytime and weekend early evening news reach a slightly lower percentage of blacks and Hispanics than whites in the target audience.

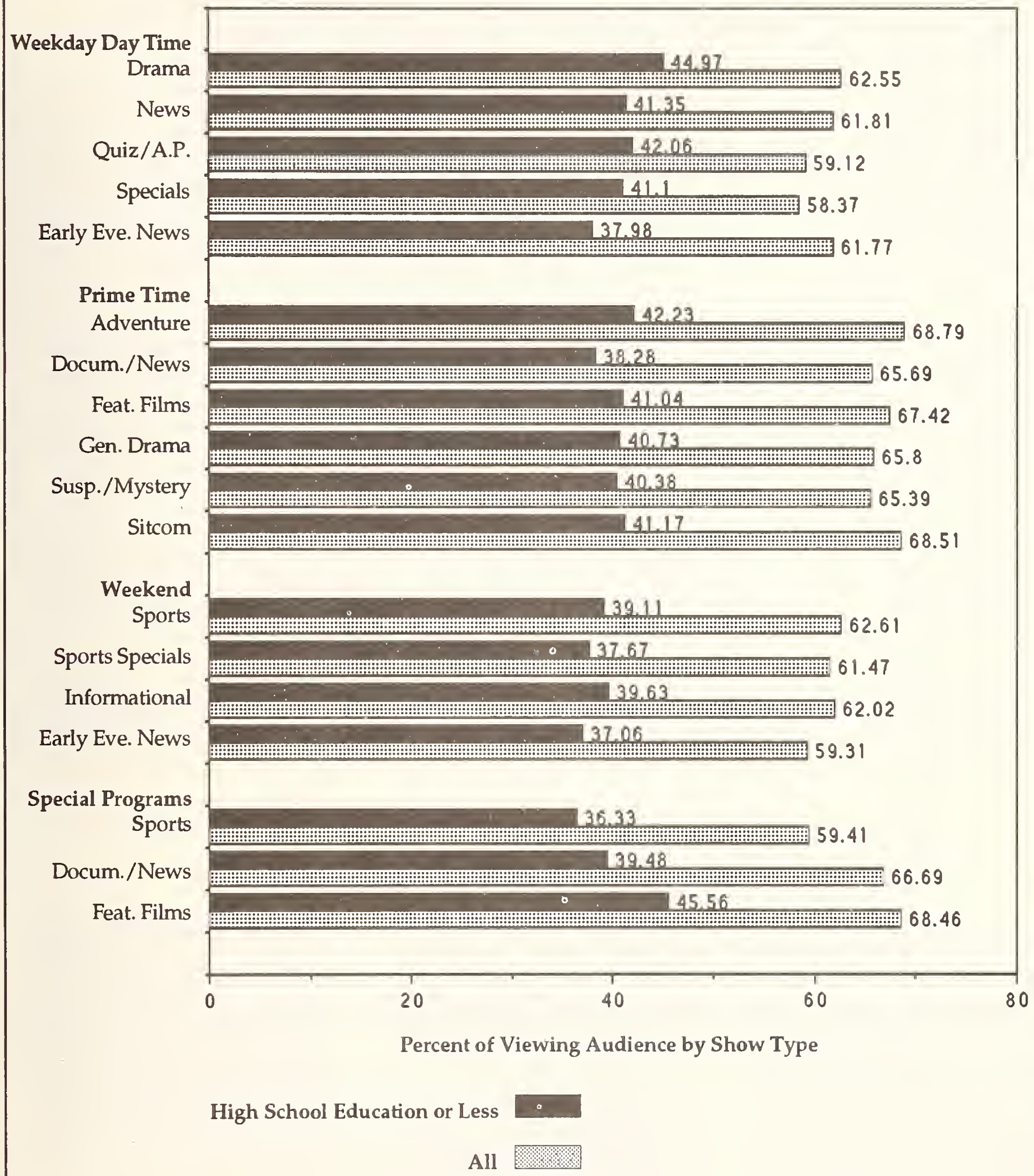
Table 31 shows the Simmons indices for television viewing by 25- to 64-year-olds. Adults with 12 or fewer years of education have higher levels of viewing than the total 25- to 64-year-old population, with a few exceptions. Special documentary/news programs are less popular with the target audience than with their age cohort, with this difference holding for blacks and Hispanics, but not whites. Among blacks and Hispanics, prime time documentary/news programs and weekend early evening news are less popular; as are prime time suspense/mystery shows among Hispanics.

Advertisers often refer to the spread between indices to indicate where to place their advertising dollars to reach an audience. In these data, in many cases, there is a wide spread between the index for the total population of 25- to 64-year-olds and those with 12 or fewer years of education. For example, all weekday formats, with the exception of news, have at least a 14-point spread in the index figures. This difference is also apparent for blacks and Hispanics, although to a lesser degree. This means that those with 12 or fewer years of education consistently watch more daytime television than their age peers; however, the difference is less marked for news than for all other types of daytime shows. These differences in viewing are less marked during prime time and weekend viewing —one indication of the mass appeal of television for many Americans.

SPANISH LANGUAGE TELEVISION

Though viewing of Spanish language television is not yet tracked by any national data source, Spanish language television is gaining popularity with advertisers (*Advertising Age*, 1989). The two Spanish language television networks, Univision and Telemundo, report reaching 84 percent and 66.2 percent of Hispanic households, respectively.

Figure 6. Composition of 25- to 64-Year-Old Television Audience by Educational Attainment: United States, 1988



Source: Simmons Market Research Bureau, Inc., 1988.

Table 30. 25- to 64-Year-Olds Reached by Television According to Race, Ethnicity, and Level of Educational Attainment: United States, 1988
(In percent)

Show Type and Daypart	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Weekday Daytime								
Drama	3.34	4.05	3.14	3.83	5.12	5.58	3.58	4.40
News	1.60	1.72	1.53	1.64	2.06	2.17	1.54	1.63
Quiz/Audience Participation	2.22	2.66	2.17	2.60	2.66	3.09	1.86	2.26
Specials	2.07	2.46	1.98	2.35	2.89	3.05	2.56	3.06
Early Evening News	7.32	7.59	7.32	7.63	7.72	7.67	6.13	5.73
Prime Time								
Adventure	7.00	7.46	6.86	7.31	8.33	8.57	7.46	7.58
Documentary/News	9.66	9.78	9.76	9.97	8.94	8.82	8.62	8.28
Feature Film	9.61	9.86	9.75	10.06	8.90	8.99	9.33	9.40
General Drama	8.60	8.98	8.65	9.00	8.65	8.70	7.66	8.14
Suspense/Mystery	7.97	8.30	7.77	8.06	9.89	9.96	6.98	6.83
Situation Comedy	8.40	8.51	8.29	8.39	9.14	9.10	8.15	8.40
Weekend								
Sports	2.49	2.58	2.42	2.45	2.99	3.15	2.34	2.43
Special Sport	1.84	1.90	1.84	1.90	1.97	1.82	1.65	1.78
Informational	1.33	1.44	1.30	1.41	1.59	1.59	1.13	1.18
Early Evening News	3.27	3.82	3.24	3.46	3.46	3.38	2.98	2.80
Special Programs								
Sports	2.77	2.86	2.84	2.94	2.47	2.50	2.42	2.67
Documentary/News	3.52	3.52	3.55	3.63	3.00	2.82	3.21	2.48
Feature Film	7.21	8.09	7.35	8.20	7.19	8.23	6.05	6.37

Source: Simmons Market Research Bureau, Inc., 1988.

There has been a presumption, based on earlier studies of Spanish language television (O'Guinn et al., 1985) that Spanish language television reaches an older and less acculturated audience than network TV. Reports in the popular and trade press (*Advertising Age*, 1989; *U.S. News and World Report*, 1989; and *Newsweek*, 1989) conclude this may be changing as the Spanish language television networks revise the orientation of their programming to be more similar to U.S. network television.

A related question regarding media channels for reaching Hispanics has been their use of English language television. As the Simmons data show, Hispanics are avid viewers of U.S. network television.

CONCLUSIONS

As these data have shown, television is clearly a medium that can reach those with lower educational levels. It appeals to blacks and Hispanics as well as whites. During the daytime, television reaches higher percentages of blacks than of whites and Hispanics. By all measures, television is more popular with those with a high school education or less than others in the same age group. A health communication program could confidently use television, even available public service or talk show time during the day, and reach many in this target audience.

The popularity of television with this group opens up opportunities for creative use of television time for communicating health information. Daytime drama, with its ongoing story line, could serve as a

Table 31. Simmons Indices of 25- to 64-Year-Old Television Audience by Show Type and Daypart According to Race, Ethnicity, and Level of Educational Attainment: United States, 1988

Show Type and Daypart	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Weekday Daytime								
Drama	91	110	90	110	94	102	91	112
News	94	101	93	99	100	105	104	110
Quiz/Audience Participation	86	100	85	101	90	105	86	105
Specials	85	100	85	101	82	87	93	114
Early Evening News	92	95	90	92	106	111	98	102
Prime Time								
Adventure	97	103	96	102	99	102	105	106
Documentary/News	95	96	94	96	100	98	96	92
Feature Film	98	100	98	101	98	99	98	100
General Drama	95	99	95	100	97	98	98	104
Suspense/Mystery	95	99	94	97	99	100	97	95
Situation Comedy	99	100	99	100	99	99	99	102
Weekend								
Sports	92	95	90	92	106	111	98	102
Special Sport	89	92	87	90	100	102	96	104
Informational	90	97	87	94	111	111	100	105
Early Evening News	86	90	85	91	91	89	93	88
Special Programs								
Sports	86	89	84	87	100	102	94	103
Documentary/News	97	96	96	98	99	94	112	87
Feature Film	99	111	99	110	101	116	110	116

Source: Simmons Market Research Bureau, Inc., 1988.

vehicle for information about disease prevention and demonstrate the long-term commitment to healthy diet and exercise practices and their relationship to health practices. Although high blood pressure or diabetes is not as exciting as some diseases depicted on daytime dramas, writers, producers, or actors might be convinced of the value of such an effort.

The Simmons data show that some of the traditional outlets for health information on television, such as news reports, may actually be less effective in reaching this target audience, especially blacks and Hispanics, than they are for other adults. This reinforces the call for creative programming ideas for this audience. Programming at the local level can offer many opportunities. For example, a television station working with a health organization could take on an issue like weight loss or exercise and coordinate television programming with community events. Or a weight-loss program organized as a self-help group could be televised as a way of sharing information and showing realistic role models for changed practices.

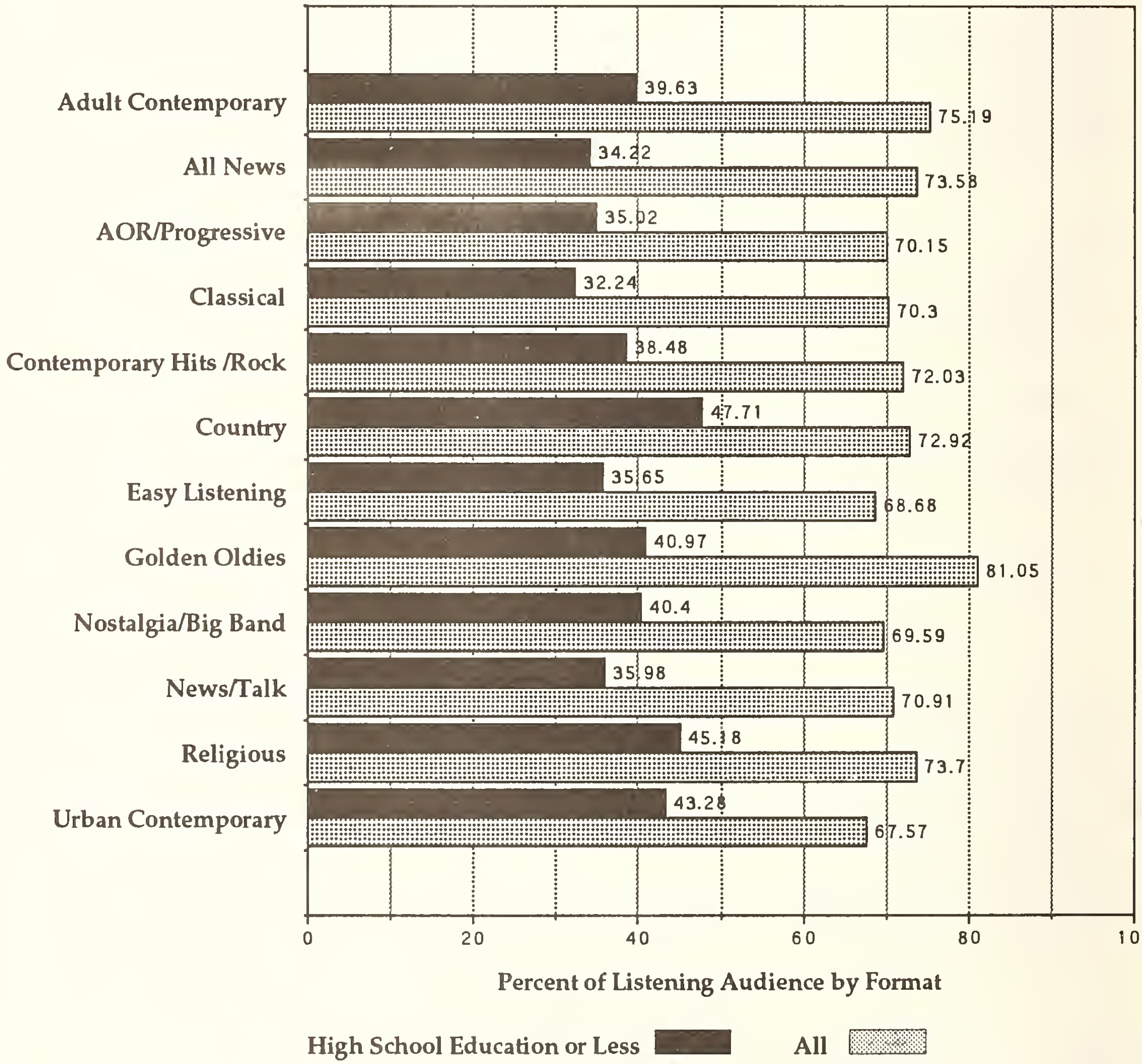
RADIO LISTENING

Simmons data on radio listening are presented by radio format (e.g., all news, classical, religious, contemporary hits/rock or album-oriented/progressive). The data were collected using one personal and one telephone interview of respondents that assessed "yesterday's listening." As with foreign language newspapers, Simmons does not collect data on foreign language radio use.

Figure 7 shows the composition of the radio audience, ages 25 to 64, and the percent of that audience with a high school education or less. Adults with a high school education or less, who comprise 41 percent of the Simmons sample, make up to 47.7 percent of the country radio audience, 45.2 percent of the religious radio audience, and 43.3 percent of the urban contemporary radio audience. They make up 38.5 percent of the contemporary hits/ Rock radio audience, 36.0 percent of the news/talk radio audience, 35.6 percent of the easy listening radio audience, 35.0 percent of the album oriented rock/progressive radio audience, 34.2 percent of the all news radio audience, and 32.2 percent of the classical music radio audience.

Figure 7 provides an overview of listening among adults with a high school education or less. The listening habits of white, black, and Hispanic adults are shown in more detail in Tables 32 and 33. Table 32 indicates the percentage of 25- to 64-year-olds reached by various radio formats. Among all adults with a high school education or less, adult contemporary stations reach 15.9 percent and country stations reach 17 percent. Unlike television where viewing among specific populations is quite similar, the percentages reached by different radio

Figure 7. Composition of 25- to 64-Year-Old Radio Audience by Educational Attainment: United States, 1988



Source: Simmons Market Research Bureau, Inc., 1988.

formats vary substantially. For example, adult contemporary stations reach 16.8 percent of whites, 10.5 percent of blacks, and 9.4 percent of Hispanics with 12 or fewer years of education. Urban contemporary stations, which include black oriented stations, reach 10.1 percent of blacks, and only 1.2 percent of whites and 3.2 percent of Hispanics at that age and educational level. Contemporary hits/rock stations reach 15.6 percent of Hispanics and 11.3 percent of whites, but only 6.5 percent of blacks ages 25 to 64 with 12 or fewer years of education. Country stations reach 18.4 percent of whites, 11.5 percent of Hispanics, and 9.4 percent of blacks in the target audience.

Table 33 presents the Simmons indices for radio listening. With a few exceptions, adults with 12 or fewer years of education listen to radio less than the total population ages 25 to 64. The spread between indices (12 or more points) indicating lower listening is evident for all news radio, news/talk radio, and classical programming although data are not available for Hispanics for classical listening. Contrary to the general trend, country and religious stations are more popular among those with lower educational levels than their age cohorts and urban contemporary stations are more popular among whites and Hispanics in this target audience.

CONCLUSIONS

Adults with 12 or fewer years of education view more television but are a smaller part of the radio audience than others in their age group. Though listening less, the more precise targeting possible with radio makes some formats attractive for reaching this audience. Country stations and adult contemporary stations are popular as are contemporary stations among whites and Hispanics and urban contemporary stations among blacks. News/talk and all news stations are not particularly popular among the target audience. The preference for different kinds of music also has creative implications for radio public service announcements targeting segments of the project population.

The lower cost of radio production and the possibility of using on-air talent provides many opportunities to tailor specific messages and information to special audiences or to reflect regional or local character. Such targeting might be the best use of radio for reaching segments of the broader project population.

MAGAZINE READERSHIP

Simmons data on magazine readership are presented by type of magazine (e.g., mechanics, women's fashion and beauty, or business and finance). Data on magazine reading

Table 32. 25- to 64-Year-Olds Reached by Radio According to Format, Race, Ethnicity, and Level of Educational Attainment: United States, 1988
(In percent)

PROGRAM TYPE	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Adult Contemporary	17.84	15.85	18.91	16.82	10.87	10.49	12.25	9.40
All News	3.88	3.05	3.62	2.86	5.93	4.20	6.13	5.44
AOR/Progressive	8.32	7.00	8.61	7.41	5.47	4.78	8.59	7.90
Classical	3.20	2.48	3.35	2.57	1.80	*	1.78	*
Contemporary Hits/Rock	11.70	10.53	12.38	11.26	7.13	6.51	15.58	15.62
Country	15.42	17.02	16.41	18.40	8.99	9.37	11.18	11.49
Easy Listening/ Beautiful Music	6.07	5.31	6.28	5.61	4.71	3.76	3.70	2.62
Golden Oldies	4.90	4.17	5.05	4.34	3.47	*	4.76	4.79
Nostalgia/Big Band	5.10	4.99	5.32	5.26	4.21	3.88	3.78	3.94
News/Talk	5.95	5.09	6.01	5.13	5.25	4.71	5.51	4.38
Religious	3.17	3.28	3.09	3.13	3.62	4.23	3.87	4.37
Urban Contemporary	2.29	2.47	1.20	1.21	10.13	10.10	2.89	3.21

*Number of respondents too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1988.

Table 33. Simmons Indices of 25- to 64-Year-Old Radio Audience by Type of Program According to Race, Ethnicity, and Level of Educational Attainment: United States, 1988

PROGRAM TYPE	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Adult Contemporary	109	97	110	98	102	98	97	75
All News	107	84	106	84	108	76	112	100
AOR/Progressive	102	85	102	87	100	88	95	87
Classical	102	79	105	80	74	85	100	*
Contemporary Hits/Rock	104	94	105	96	99	91	101	101
Country	106	117	106	119	101	105	110	113
Easy Listening/ Beautiful Music	99	87	99	88	113	90	111	78
Golden Oldies	117	100	116	100	123	111	102	103
Nostalgia/Big Band	101	99	102	101	90	83	104	109
News/Talk	103	88	101	86	117	105	99	79
Religious	107	110	107	108	104	121	116	131
Urban Contemporary	98	106	104	105	91	91	108	120

*Numbers of respondents too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1988.

were collected in two personal interviews conducted about two weeks apart. Respondents were shown sample issues of the magazine, a survey method known as "through the book," to be sure they had read or looked through them.

Figure 8 presents the composition of the magazine reading audience, 25 to 64 years old, and the percent of that audience with a high school education or less. Constituting 41.0 percent of the Simmons sample, readers with 12 or fewer years of education make up 46.6 percent of the readers of hunting and fishing magazines such as *Outdoor Life* and *Field and Stream;* 41.1 percent of the readers of general appeal magazines, such as *People* and *TV Guide*; 40.9 percent of readers of women's magazines, such as *Family Circle* and *McCall's;* and 40.1 percent of the readers of magazines about mechanics, such as *Popular Mechanics.* Adults with 12 or fewer years education are a small percentage of those reading magazines devoted to business and finance (24.5 percent) and science and technology (21.9 percent).

Table 34 presents the percentage of those ages 25 to 64 reached by various types of magazines. Types of magazines which reach a large segment of adults with 12 or fewer years of education include general appeal magazines (65.8 percent), newspaper distributed magazines (64.9 percent), women's magazines (44.9 percent), news magazines (33.4 percent) and home services magazines (31.3 percent). In general, these magazines reach more whites and blacks than Hispanics.

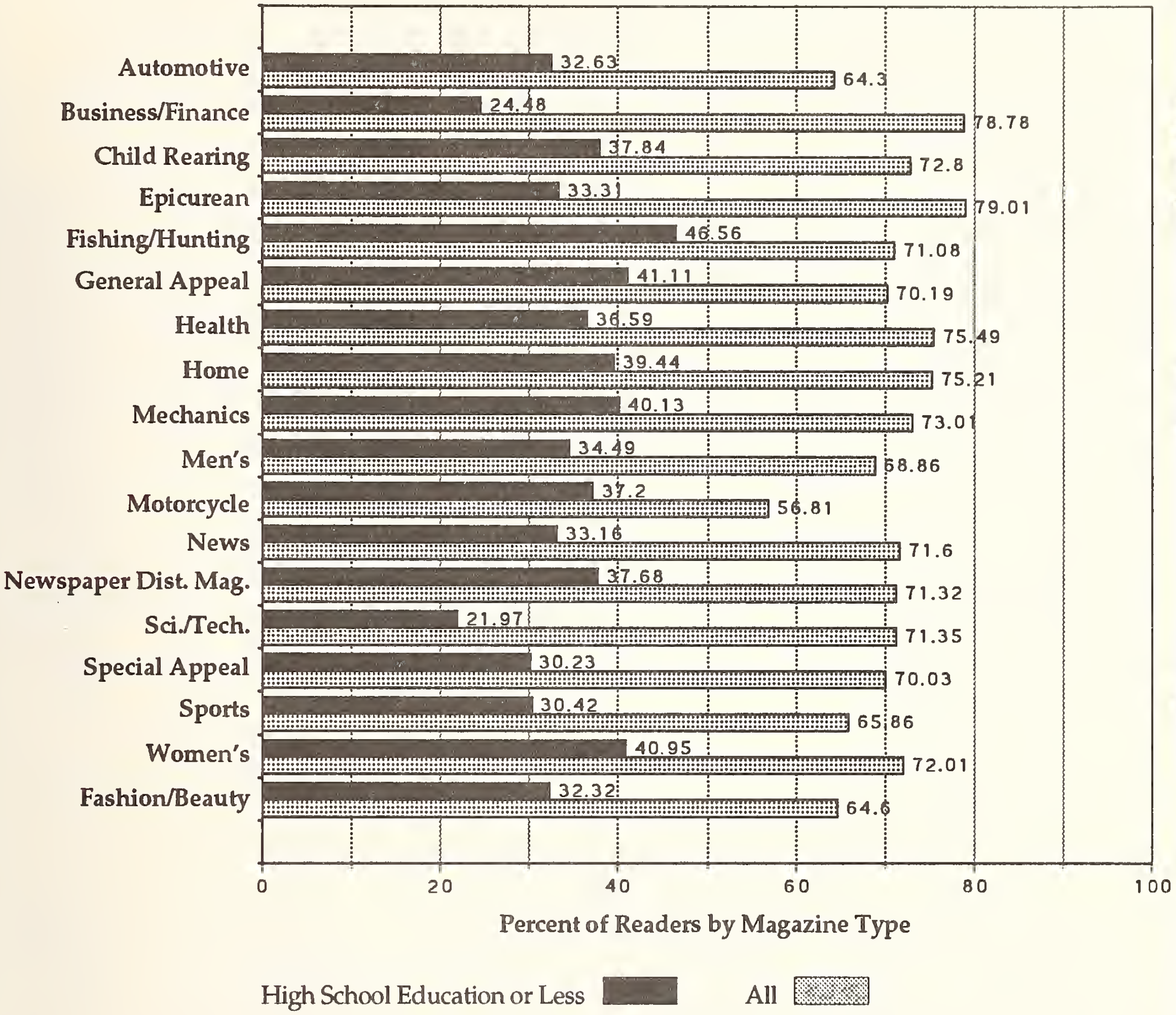
Table 35 presents the Simmons indices for magazine readership. For nearly all types of magazines, adults with 12 or fewer years of education read fewer magazines than their age mates. The exceptions, where those of lower education levels read more, were among whites and blacks for fishing and hunting magazines, and among whites for motorcycle magazines.

For many types of magazines, the spread between the indices is quite large (20 or more points), showing lower readership among those with lower educational levels. Lower readership is found among the total, white, black, and Hispanic populations for news magazines; among the total, white and black populations for health magazines; among the total and white populations for epicurean and sports magazines; among Hispanics for magazines about homes and home services; and among blacks for men's magazines.

CONCLUSIONS

The data indicate that, in general, magazines are read by either large segments of the population or by very specialized audiences. The magazines that reach the largest numbers of those with lower levels

Figure 8. Composition of 25- to 64-Year-Old Magazine Readers by Educational Attainment: United States, 1988



Source: Simmons Market Research Bureau Inc., 1988.

of education are those with the widest appeal and distribution overall. To target health communication programs specifically, more information would be useful. For example, the category of general appeal magazines includes titles such as *TV Guide*, *Star*, and *Reader's Digest*. Some of these magazines clearly would be more appropriate vehicles for health information than others. Newspaper distributed magazines also have wide appeal. Some magazines with specialized topics, such as hunting and fishing for white and black readers, and motorcycles for white readers, might provide the opportunity for tailored messages to reach segments of the target audience.

Magazines also offer distinct advantages over television and radio because their format normally allows sufficient space to explain complex information and, as printed material, has a longer shelf life. Working with magazines, however, requires careful tailoring and patience because of the long lead times. The infrequency of magazine publication, in comparison with daily and weekly newspapers, can make competition for coverage intense.

NEWSPAPER READERSHIP

Information on newspaper readership was obtained from the American Demographics (1988) Task Force on Minorities in the Newspaper Business. The Task Force included representatives of professional and business associations of publishers, journalists, and newspapers.

Table 34. 25- to 64-Year-Olds Reached by Magazine According to Publication Type, Race, Ethnicity, and Level of Educational Attainment: United States, 1988
(In percent)

PUBLICATION TYPE	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Automotive	4.66	3.99	4.84	4.13	3.83	*	*	*
Business and Finance	16.90	8.85	17.21	8.83	12.94	9.12	13.32	*
Child Rearing	2.87	2.51	2.91	2.47	*	*	*	*
Epicurean	7.00	4.97	7.35	5.07	3.83	*	*	*
Fishing and Hunting	13.53	14.93	14.70	16.40	6.28	7.10	8.04	*
General Appeal	66.65	65.79	66.12	65.95	72.55	67.56	62.33	58.02
Health	9.32	7.61	9.69	8.06	7.18	5.04	*	*
Home and Home Services	35.46	31.34	36.69	32.77	27.48	23.85	26.29	20.22
Mechanics	8.65	8.01	9.30	8.77	3.98	*	8.72	*
Men's	11.64	9.82	11.05	9.20	16.43	13.39	11.72	*
Motorcycle	2.01	2.22	2.13	2.43	*	*	*	*
News	42.46	33.44	40.51	30.72	57.45	52.04	35.04	26.44
Newspaper Distributed Magazines	72.90	64.91	73.95	66.05	67.93	61.09	57.44	45.84
Science/Technology	5.82	3.02	5.99	3.17	4.04	*	6.72	*
Special Appeal	32.85	23.91	34.52	25.25	22.91	17.23	26.91	18.46
Sports	13.02	10.13	13.51	10.35	9.77	8.71	10.74	*
Women's	46.83	44.89	46.85	45.76	48.76	42.09	39.91	35.54
Women's Fashion/Beauty	12.25	10.36	12.09	10.35	13.21	10.57	13.72	*

*Number of respondents too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1988.

DAILY NEWSPAPERS

The report of the Task Force concludes that circulation figures have been relatively flat for about 20 years, and newspaper readership is falling. In 1988, about 60 percent of American adults read a daily newspaper, down from 79 percent in 1961. Female readership in particular seems to be declining. A different data source, the Newspaper Advertising Bureau, found that in 1982, 61 percent of women read at least four of five weekday issues. By 1988, the proportion had declined to 45 percent. A similar decline was reported for men, from 63 percent in 1982 to 53 percent in 1988 (Miller, 1989).

The percentage of white, black, and Hispanic adults reading daily and Sunday newspapers is shown in Figure 9. While more whites than minorities read daily and Sunday newspapers, newspapers still exhibit a wide appeal, with 62 percent of whites, 52 percent of Hispanics, and 51 percent of blacks reading daily papers and 65 percent of whites, 57 percent of blacks, and 53 percent of Hispanics reading Sunday newspapers.

The Task Force on Minorities in the Newspaper Business (*American Demographics*, 1988) concludes that income and education are critical determinants of readership, not race and ethnicity. As income and education of blacks and Hispanics rises, so does newspaper readership. Figure 10 shows the differences in levels of readership based on education, with similar readership among white, black, and Hispanic college graduates. The effect of income on newspaper readership rates is just as apparent with similar rates of readership among those with an annual income of $60,000 or more. Figure 11 shows the proportion of whites, blacks, and Hispanics at three income levels who read daily newspapers.

According to the Task Force findings, many minorities distrust newspapers because they view them as predominantly white institutions. Many blacks, they contended, doubt that the newspapers are concerned with community well-being and feel the newspapers are concerned mostly about profits. The Task Force also reports that Hispanics dislike the detached style and tone of American journalism.

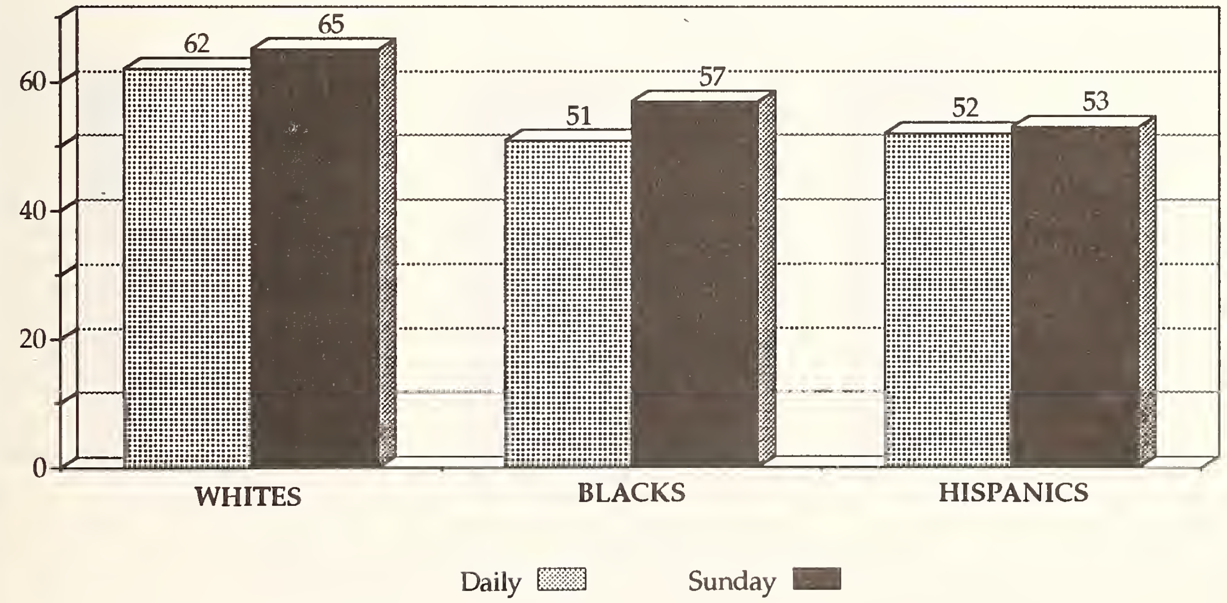
Table 35. Simmons Indices of Magazine Readership by Publication Type Among 25- to 64-Year-Olds According to Race, Ethnicity, and Level of Educational Attainment: United States, 1988

PUBLICATION TYPE	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Automotive	93	80	94	81	91	*	*	*
Business and Finance	114	60	114	58	114	81	117	*
Child Rearing	105	92	105	90	*	*	*	*
Epicurean	114	81	114	78	116	*	*	*
Fishing and Hunting	103	114	103	115	95	107	102	*
General Appeal	102	100	102	101	102	95	99	92
Health	109	89	111	92	113	80	*	*
Home and Home Services	109	96	109	95	109	95	108	83
Mechanics	106	98	106	100	105	*	109	*
Men's	100	84	101	84	97	79	90	*
Motorcycle	82	91	82	94	*	*	*	*
News	104	82	104	79	102	92	96	72
Newspaper Distributed Magazines	103	92	103	92	104	94	96	77
Science/Technology	103	54	102	54	121	*	102	*
Sports	95	74	96	74	95	84	81	*
Women's	104	100	104	102	107	93	97	86
Women's Fashion/Beauty	93	79	94	80	96	77	81	*

*Number of respondents too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1988.

Figure 9. Adult Newspaper Readership by Race and Ethnicity
(In percent)



Source: American Demographics, 1988.

To increase readership, newspapers are experimenting with increased coverage of local events and lifestyle information. Some have added weekend entertainment and home sections. Others are adding more coverage of the arts, science, health, and personal finance (*Trend Letter*, 1989).

WEEKLY NEWSPAPERS

While circulation of daily papers fell, weekly papers experienced increased circulation. Household penetration of weeklies went from 43 percent in 1970 to 56 percent in 1988 (Miller, 1989). According to the *Trend Letter*, since 1980, circulation of the 5,000 weeklies represented by the National Newspaper Association jumped 23 percent, to 52 million. Reportedly, weeklies flourish because of their low overhead, simplified circulation, long shelf life, and ability to cover local events.

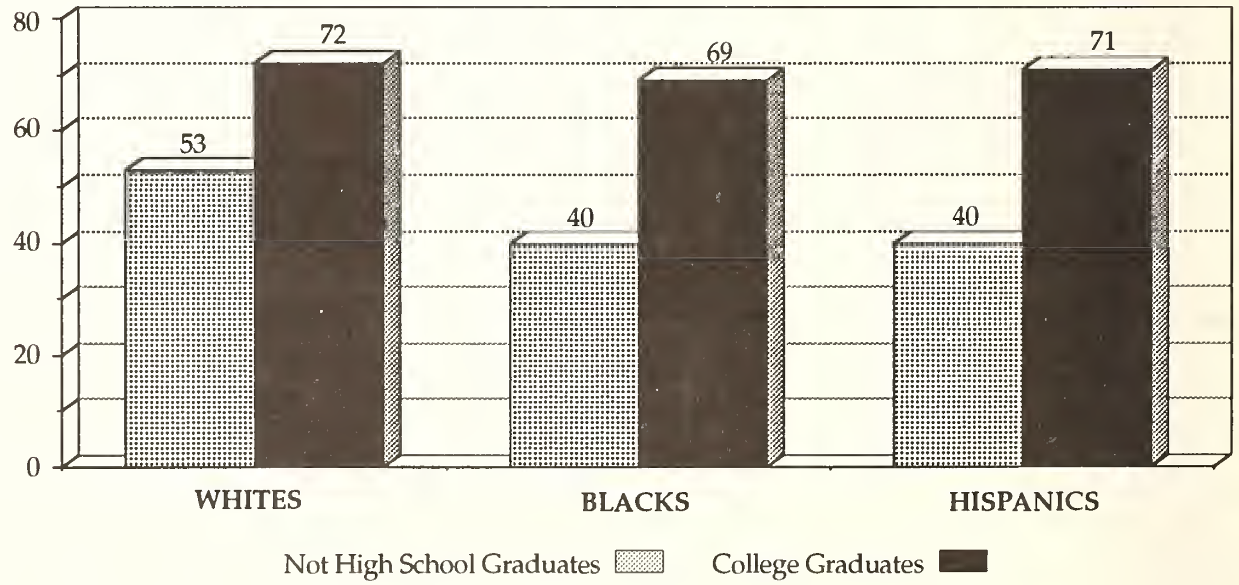
CONCLUSIONS

While newspapers are read more by individuals with higher education levels and higher incomes, particularly men, they are still read by large numbers of the target audience. Data were not available to determine if specific sections of daily papers are more popular than others, but it does seem some special sections offer opportunities to carry information about diet and exercise, in addition to front page news stories. For example, sports, lifestyle, and food writers need ideas and information for diet and exercise stories that would attract readers in this audience. Papers striving to increase minority readership might be especially willing to feature issues of importance to black and Hispanic health.

OTHER COMMUNICATION CHANNELS

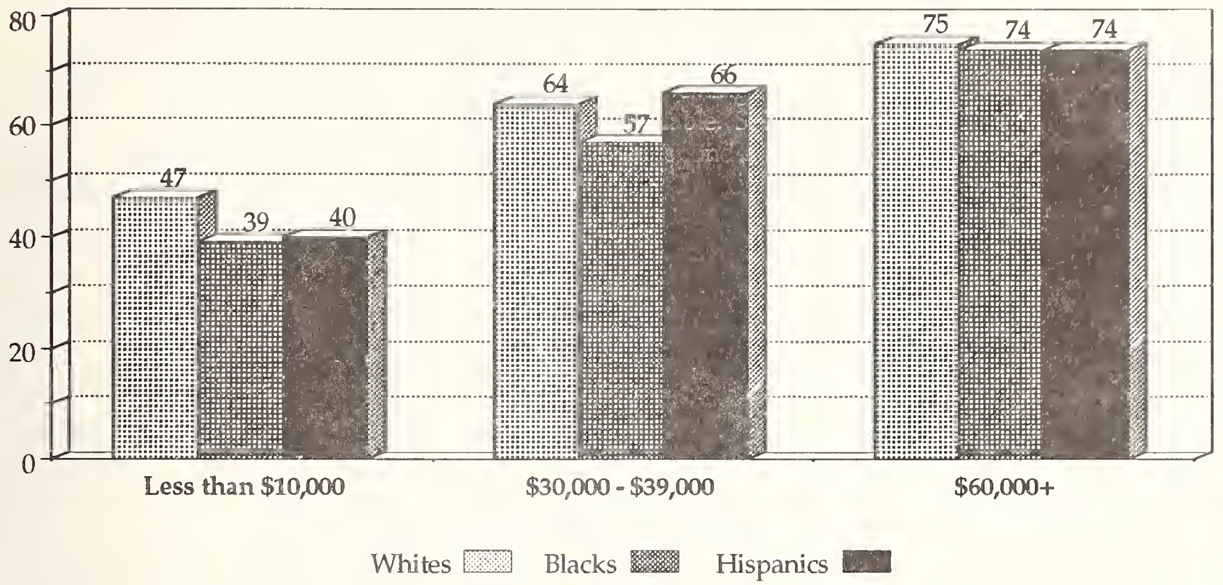
Mass media provide an efficient channel to reach large numbers of people with information in health communication programs. The mass media can effectively be used to increase personal awareness of an issue, attract community attention to a subject, demonstrate specific skills, and reinforce healthy behaviors (Office of Cancer Communications, 1989). Mass media are limited, however, in making messages relevant to individuals, in responding to specific barriers and objections, and in providing either the level of detail or emotional and personal support which may be needed to modify habits successfully. For those reasons, health communication programs look to a variety of other channels which can provide information, offer support, and be a community focus for

Figure 10. Adult Newspaper Readership by Race, Ethnicity, and Educational Attainment
(In percent)



Source: American Demographics, 1988.

Figure 11. Adult Daily Newspaper Readership by Race, Ethnicity, and Household Income
(In percent)



Source: American Demographics, 1988.

health information and programming. These community channels appear to be particularly important in reaching audiences who are not actively seeking health information through traditional outlets.

PUBLIC AND CIVIC ACTIVITIES AND GROUP MEMBERSHIP

One way of determining which community channels can reach an audience is to find out the type of activities in which audience members participate and the groups to which they belong. Data from Simmons regarding the public and civic activities of white, black, and Hispanic adults ages 25 to 64 are presented in Table 36. Only small percentages of adults ages 25 to 64 years have ever participated in public or civic activities. The percentage of those with 12 or fewer years of education who report having ever done a public activity is even smaller. Table 36 presents the percentage of 25- to 64-year-olds who have ever done selected public activities. Voting in a Federal, State, or local election was, by far, the activity performed by the greatest percentage of whites, blacks, and Hispanics; however, fewer than half of the whites, and only about one-third of black and Hispanic adults ages 25 to 64 with 12 or fewer years of education had ever voted. Non-political volunteer work was a distant second for whites (16.9 percent); fundraising ranked second among blacks (10 percent); and writing to a TV or radio station (9.3 percent) was second among Hispanics. Of all 25- to 64-year-old adults regardless of level of education, 28.8 percent of Hispanics, 21 percent of blacks, and 16.8 percent of whites had never done any of these activities. The numbers of nonparticipation are even higher among the target populations—21.4 percent of whites, 23 percent of blacks and 32 percent of Hispanics.

Table 37 presents data regarding the types of groups and associations to which Simmons respondents belong. As can be seen, even though America is noted as the country of affiliative groups, the number belonging to any single type of organization is very small. In fact, of adults with 12 or fewer years of education, 40.9 percent of whites, 34.7 percent of blacks, and 44.8 percent of Hispanics do not belong to any of the groups included in the survey.

Among respondents with 12 or fewer years of education, participation is highest on church boards, with 5.4 percent of whites and 9.6 percent of blacks indicating membership on church boards. Membership on a board clearly indicates greater involvement than church membership which is not tracked by Simmons.

Union membership was relatively high, with union membership reported by 7.4 percent of whites, 5.0 percent of blacks, and 4.0 percent of Hispanics. Whites (3.4 percent) and blacks (3.0 percent) also indicated belonging to health clubs. Interest-

Table 36. Public Activities Ever Done by 25- to 64-Year-Olds According to Race, Ethnicity, and Level of Educational Attainment: United States, 1988
(In percent)

PUBLIC ACTIVITIES EVER DONE	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
Voted in Federal/State/Local Election	54.77	47.29	57.19	49.82	37.27	33.91	39.77	32.56
Written to Editor of Magazine/Newspaper	11.45	8.56	12.18	9.13	6.31	5.04	8.04	6.44
Written to Radio/TV Station	13.26	11.23	14.09	12.04	8.42	6.90	12.02	9.26
Written to Elected Official	13.22	9.10	14.14	9.93	6.92	4.50	9.53	5.08
Written Something and Published	7.93	5.51	8.52	5.98	4.06	3.15	6.36	*
Visited Elected Official	7.25	5.61	7.52	5.93	4.81	3.80	5.06	*
Active in Local Civic Issue	10.63	7.35	11.24	7.95	6.59	4.09	7.34	*
Worked for Political Party/Candidate	7.47	5.80	7.82	6.16	5.16	4.07	6.20	*
Fund Raising	16.04	12.36	16.67	12.91	12.86	10.00	11.47	6.39
Volunteer Work (Non Political)	20.11	15.60	21.39	16.87	11.61	8.17	14.10	8.89
None of These	17.56	21.91	21.43	16.76	23.03	21.03	31.97	28.77

*Number of respondents was too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1988.

ingly, membership in the Amer-ican Association of Retired Persons (AARP) was reported by 6.8 percent of whites with 12 or fewer years of education. AARP membership can begin at 50. When data are not presented regarding blacks and Hispanics, numbers were not large enough for statistical reliability.

CONCLUSIONS

These figures underscore the challenge to health communication of getting community groups active in the dissemination of health information and the support of healthy behaviors. Even when many national groups actively participate in national public education programs, their combined efforts reach only a small percentage of the population. Of greatest importance to health educators is leveraging limited resources with the organizations that can effectively reach the largest numbers and learning how to stimulate action at the community level where contacts can be frequent and personal.

RELIGIOUS INSTITUTIONS

Churches and other religious institutions are frequently cited as a potential outlet for health information and a site for health promotion programs, especially for blacks. Churches clearly play an important social and spiritual role in communities, and are especially central to many black communities. Churches are at the forefront of addressing social needs such as child and elder care, help for the needy, and issues such as drug abuse and teen preg-

Table 37. 25- to 64-Year-Olds Belonging to Groups and Associations According to Race, Ethnicity, and Level of Educational Attainment: United States, 1988
(In percent)

MEMBERS OF	TOTAL		WHITES		BLACKS		HISPANICS	
	All	High School or Less	All	High School or Less	All	High School or Less	All	High School or Less
School or College Board	3.14	2.98	3.16	2.95	3.08	3.14	*	*
Hospital Board	1.49	1.18	1.40	1.01	2.01	*	*	*
Church Board	7.03	5.91	6.84	5.38	8.88	9.59	4.46	*
Art Associations	2.63	1.50	2.74	1.49	2.07	*	*	*
Business Clubs	3.39	1.70	3.65	1.83	*	*	*	*
Union	7.62	7.08	7.88	7.37	5.64	5.03	5.86	4.03
Fraternal Orders	4.86	4.16	5.10	4.32	3.44	*	*	*
Religious Clubs	2.29	1.72	2.36	1.83	*	*	*	*
Civic Clubs	2.08	1.25	2.20	1.37	*	*	*	*
AARP	6.74	6.06	7.36	6.81	2.77	*	3.78	*
Veterans Clubs	3.50	3.54	3.80	*	*	*	*	*
Country Clubs	2.18	1.48	2.32	1.54	*	*	*	*
Health Club	4.93	3.34	5.09	3.44	3.98	3.03	4.67	*
Body of Local Government	1.54	1.24	1.63	1.34	*	*	*	*
Environment Organization	2.05	.92	2.32	1.04	*	*	*	*
Regional Development Committee	.75	.55	.76	.60	*	*	*	*
None of These	37.82	40.06	37.94	40.87	35.86	34.68	41.10	44.82

*Number of respondents too small for statistical reliability.

Source: Simmons Market Research Bureau, Inc., 1988.

nancy. In a study of the outreach activities of black churches, few had health on their already crowded agendas (Billingsley and Rouse, 1988).

The interest in churches as potential channels of information was strong enough to explore the issue in some detail with the focus group participants. A majority of the white and black focus group participants felt that churches would be appropriate outlets for health information.

> "They're helping you live longer, so they're showing that they care about the community, care about a person as a person."

> "The Bible says your body is a temple, and you have to take care of it, so they're helping you take care of your body."

> "You know the people there and you feel more comfortable and it would probably be more like a social thing, and you'd get this added benefit, whether it be nutrition, exercise, whatever."

> "I think anything having to do with life, day to day living, I think the church should be in on. And the church has always been the strong part of the black community, in black people's lives and always will be."

These respondents did draw the line, however, on how such information should be provided. It was definitely not seen as appropriate to include health messages in the church service or sermon. Respondents were favorable to the idea of written materials being available at the entrance to the church and of classes (in the basement or social hall) during the week.

In the focus groups, Hispanic participants stated their churches sponsor social activities and programs for the needy, alcohol and drug abusers, and the widowed. None had knowledge of any health programs offered by their churches. When asked how they would feel about their church offering programs and information on health, diet, and exercise some thought it was a good idea and others did not.

> "I wouldn't like that in church."
>
> "I go to a Catholic Church and they don't have anything like that."
>
> "I would be surprised because I have never heard talk about things like that in church."
>
> "If you believe in your religion, you would believe in what the church says."
>
> "I think I would believe it if it was said in church."

CONCLUSIONS

In some communities, and with specific populations, churches might well prove to be valuable outlets for health information and health programming. However, with their already full agendas, churches would need to be cultivated and supported in the same ways that other potential communication channels, for example schools, worksites, or the media, would be. Any programming would need to be sensitive to church leaders' and members' views about the appropriateness of the topic within spiritual institutions.

Rather than trying to get major programs underway, some simple ideas that expand on what religious institutions already do might be an appropriate start. For example, people who cook for church suppers might be willing to experiment by offering a low-fat meal. A basic kit that includes recipes, labels with nutritional information for the dishes, and some handouts would be helpful to get started. Simple, flexible materials put into the hands of active parishioners might yield some interesting results.

CREDIBLE SOURCES OF HEALTH INFORMATION

The issue of where the target audience is currently seeing or hearing information about health and who they feel are credible sources of health information was explored in the focus groups. While most respondents said they would tend to believe information that stated their chances of staying healthy could be improved by diet and exercise habits, many qualified the response by spontaneously mentioning the importance of the credibility of the source.

> "It depends on who the person is. If it was a doctor or someone I trusted, then yes. I just can't believe anything anyone says."
>
> "I trust what the doctor tells me about this type of information—what I should eat, exercise, and drink."
>
> "It would depend on who the advisor was—someone hung up on health foods, a vegetarian, a Cambridge diet person, a doctor—I'd have to think about where the source came from."
>
> "When Ralph Nader says it, I'll believe it."

DOCTORS AND OTHER MEDICAL SOURCES

Most Hispanic men and women and white women were able to list many reliable sources of health information, such as libraries and hospitals, citing advertisements and mailings from hospital health promotion programs. However, they tended to trust a doctor before anyone else.

> "I trust a doctor, because someone like that will have that type of knowledge."
>
> "The doctor knows best...the doctor would be the best source."
>
> "I would go to a doctor, that would be someone I would have confidence in."

This trust of doctors was not universal, however.

> "I am not sure. I feel that my husband went to hospitals and doctors, and he died."
>
> "Staying away from doctors will keep you healthy."
>
> "Stay away from them. They'll bury you."

White men and black men and women were more hesitant about suggesting sources of health information. In some groups, nobody responded to the question when asked, "Where would you go to get information on your health, diet, and exercise?" Those who did respond would not necessarily trust what a doctor said without also relying on their own sense of what is right for them.

> "I listen to my own body and my common sense...I would not trust them [doctors] to the point where I would follow directly behind them. I would think about it and do my own searching, too."

Participants in nine of the 24 groups specifically mentioned dietitians and nutritionists as sources of information, but they were not pressed on what they meant or where they would find a reliable practitioner.

THE GOVERNMENT

Participants were asked what they thought of the government as a source of health information. Opinions ranged from complete trust to total distrust. Participants in six groups were favorable to the government as a source, though they often cited other sources such as hospitals as more credible. In other groups the response to government was very negative.

> "You can't trust the government at all. Look at all the food they give away that's bad for you, like cheese and butter. They're just full of crap."

> "The government's all politicians and big business. I definitely wouldn't believe them."

> "I can't believe a word they say...some pharmacy company or something pays off somebody in Washington."

Hispanics viewed government "propaganda" as believable. Many stated they would want material in writing to keep, would trust it more if it were free than if they had to pay for it, and thought it should be bilingual.

THE MEDIA

Participants were asked where they had recently seen or heard information about health, diet, and exercise and what they thought about it. Television was widely credited as the place they had seen or heard health information, with respondents mentioning talk shows, news programs, and commercials as their sources.

> "On cable TV they have a health program. They're all the time telling you to do this and do the other."

> "On television—I like watching the cooking shows and a lot of times they show diet foods. They tell you what's good for you."

Commercials for Richard Simmons exercise videos and "Deal a Meal" program were often mentioned in areas where those commercials were running. It points to a common trend among these participants to use commercials as a source of information, and, even if the product is ignored, to extract an underlying message about health and health behavior.

Individuals in several groups cited reputable magazines as a source of information, specifically mentioning *Good Housekeeping*, *Consumer Reports*, and *Running*. Overall, few respondents mentioned magazines as a source of information.

A few respondents mentioned newspaper articles as a source of information. This response was most true in San Jose where the "Medicine" section of the newspaper was cited and is known for high caliber reporting.

Some respondents mentioned specific radio shows hosted by physicians as sources of information. For example, Dr. Rico Perez in Miami was widely cited as talking about dieting. Others reported receiving confusing messages from radio, for example, a Paul Harvey report on a study in which people "that ate a lot of bran and baked instead of fried foods didn't have any lower rate of heart attacks or anything."

CONCLUSIONS

Determining how a source of information will be perceived is very important in communicating with this audience. Among some focus group participants, predominantly black men and women and white men, there appeared to be a distrust of institutional sources and a skepticism of medical sources. Some of the skepticism was linked with a distrust of advice offered by individuals or groups with a profit motive. Such distrust would need to be overcome or addressed for health messages to be effective. Groups viewed as on the side of the consumer such as Ralph Nader and *Consumer Reports* had a more favorable image. Enlisting consumer activists and using a comparison approach that is popular in consumer circles might be one way to engage some members of this audience and overcome credibility barriers.

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CHAPTER SEVEN

IMPLICATIONS FOR HEALTH PROMOTION AND DISEASE PREVENTION

The purpose of this project was to gain a better understanding of how American adults of lower SES perceive health and their knowledge, attitudes, and beliefs about diet, exercise, and weight control. One of the questions raised at the outset was whether this population was indeed "hard to reach." What the project defined is not so much a population that is hard to reach, but rather one that is reached daily by the health claims of commercial advertising. Rather, the label of "hard-to-reach" came to mean a segment of the population not linked into the usual channels of health information, such as television news, newspapers, books, and magazines. This group is characterized by people who do not seek out health information on their own — people whose fundamental beliefs and attitudes about health do not guide them to interpret new health information and data in the same way as people who have a greater general understanding of technical and scientific information — people whose perceptions about chronic disease and how to prevent it do not include personal behaviors. In short, it is a group of people who have not yet accepted the underlying premise of disease prevention and health promotion, much less mastered its nuances.

From the focus groups, however, it also seems that many, though not all, in this audience were interested in doing better although they were not actively seeking out the steps they could take. Rather, information would need to come to them in ways they could understand before change would be realistic to expect. To compel action, information would also need to overcome barriers of cost and convenience that govern day-to-day decision making within this audience.

MAKING HEALTH PROMOTION MEANINGFUL TO MORE AMERICANS

The findings from this research do not allow for complacency about current health promotion achievements. Rather, the research shows that health promotion information and practice have eluded many of the very people for whom they are intended. Health promotion professionals usually assume that one accepts that there is a role one can play in improving one's health risks. That premise is insufficient for communicating with the audience described in this report. Health promotion's message is not reaching them in ways they can understand and in ways that match with their beliefs and attitudes about their health.

Change in health communication programs will be necessary for continued progress against some of the nation's major causes of death. Some specific directions were suggested in the focus groups — acknowledging the role of heredity in health; focusing on recommended behaviors and skills rather than on diseases that seem distant and uncontrollable to this audience; overcoming misconceptions that taking care of yourself is costly and inconvenient; making recommended behaviors practical so they "fit in" with day-to-day life; and urging physicians and other health professionals to play a direct and supportive role with this aspect of their patients' care.

AN IMPORTANT ROLE FOR PHYSICIANS

Focus group participants often relied on "my doctor told me" or "if my doctor told me" to justify continuing all types of unhealthy behaviors. Clearly, the role of how medical professionals communicate, directly and by omission, has an impact on their patients' perceptions of what they should and should not do. Health professionals may not be communicating effectively with patients or may not be concerned at all about some of these behaviors in their patients. This premise appeared especially true for weight loss, where some people relied on physicians not mentioning weight as an endorsement of their condition. Efforts to involve health professionals more consistently and effectively in the communication of information about behavioral risk factors would provide important support and direction to this audience.

A UNIFIED APPROACH INDICATED

The present orientation of health promotion programs—disease by disease—will probably continue to elude this audience. Mention of diseases, over which they perceive little control, may not draw and hold their attention. (Focus group participants were interested in the specifics of what to eat and how and when to exercise.) A more unified approach, focusing on desirable behaviors and skills, may well be a more appropriate and efficient way to reach this audience.

LONG-TERM COMMITMENT NEEDED

For health messages to overcome these constraints, several strategies are needed. This project reinforces the importance of involving family and social support networks in the interpersonal communication of health messages. Practical, environmental constraints imposed by jobs and daily circumstances must also be addressed if change is to be initiated and sustained. The medical profession needs to adopt an active and supportive role in helping individuals understand the relation of personal behavior to health status. All this change will take time, energy, and commitment.

The "early adopters" of healthy practices have done so with relatively little urging. For that group, information alone has been sufficient to encourage a change in daily lifestyle practices to benefit health. Others, such as this audience, are more hesitant to do so. Straightforward information alone will not suffice.

The concept of health promotion needs to be broadened beyond individual behavioral change to incorporate collective changes in the environment. This audience will benefit greatly from system-wide changes that make healthy choices easy to make and sustain. For example, the confusion arising from conflicting health claims on foods may be lessened with new labeling regulations. The training of food service personnel could increase access to healthy menu selections in worksite cafeterias. And greater access to safe facilities for regular physical activity would reduce sedentary practices. Similar changes will be needed to spur the pace of healthy change among this population.

THE MEANING OF CULTURALLY RELEVANT

Culturally relevant materials and programs are often called for but seldom discussed in detail. This project clarified some parameters for cultural relevancy beyond ethnic/racial representation in photos and illustrations and language.

Somewhat surprisingly, more similarities than differences were apparent in the focus group participants' attitudes and beliefs about health, their reported practices and behaviors, and their perceptions about the link of healthy behavior to the prevention of chronic disease. In the broadest sense, for this audience, cultural relevancy must ensure a fundamental understanding of the meaning of health and behavior that is reflected in programs and messages.

But the mixture of mainstream habits and practices with racial/ethnic, age group, and gender preferences suggests that the closer the message gets to the individual, the more people want to be able to feel that it is "like them" and personally relevant. Change must fit into the context of their daily lives. In this respect, cultural relevancy must also take into account daily practices, for instance, addressing the foods purchased at convenience stores and ethnic markets.

For health communication programs, the similarities suggest that some unified themes could be developed that are readily adaptable for multiple uses and multiple audiences. It also means there are no simple rules for achieving cultural harmony, but careful work and analysis required for each program idea.

DIFFERENCES AMONG THE TOPICS OF DIET, EXERCISE, AND WEIGHT CONTROL

The focus group participants had very different levels of exposure to information regarding the role of three behavioral risk factors of concern to this project — diet, exercise, and weight control. For nutrition, so many sources of information have been available that some people have been turned off by the apparently conflicting advice. What may appear to be a high degree of knowledge and understanding about dietary issues may simply be familiarity with dietary buzz words and impressions gained from food advertising. Presenting information about what to eat, rather than what to avoid, is more appealing to people and might help to reduce some of the confusion.

More collaboration and coordination among nutrition education programs for the prevention of separate diseases would help to bring some of the fragmented information together for this audience and reinforce the collective health benefits of a healthy diet. Skills, not epidemiology, choices, not statistics, are what this audience needs. The next step for nutrition education is a closer link of diet to the related factors of exercise and weight control. This linking would help provide a better context for the trade-offs that are being made among the various risks.

Exercise is generally viewed as good for people, an idea also proffered through advertising. The audience is more "neutral" about exercise than about diet, probably reflecting the lack of attention to this topic generally. Progress will require consensus regarding the public health message. If the message is to be that regular physical activity at a moderate level of intensity is beneficial, the commonly held view of exercise as vigorous calisthenics will need to be addressed. Any efforts to promote more active lifestyles, furthermore, should be extended beyond the project population to the general population since physical activity is neglected by most people.

Of the three topics, weight control is the one most closely tied to cultural perceptions of what is appropriate and attractive. These beliefs are not easy to overcome. If the primary motivation is to look better and one thinks he or she looks just fine, weight loss will not come easily. However, the work with the obese provides a rich store of information on encouraging and maintaining weight loss that could improve efforts for the public. Because of the sensitivity of the topic, weight loss should not be promoted out of the context of a healthy diet and lifestyle. Public education needs to emphasize the integral role that these factors play in maintaining weight and deriving lasting health benefits.

APPENDIX A

PARTICIPANT SCREENER

Hello, my name is ______________, and I'm calling from ________________, a local market research firm. We are interested in finding people to participate in a group discussion about health issues. The group will take place on (DAY, DATE), here in our offices at (GIVE LOCATION). There will be about 10 other people like yourself in the group and a moderator. Nothing will be sold at the session; we are just interested in your opinion. We will be serving refreshments and will pay you $____ in cash for your time. Do you think you'll be available for about two hours on that evening?

Yes CONTINUE
No TERMINATE

Okay, great! I have just a few questions to ask you to see which group best fits you. (CONTINUE WITH QUESTION 1)

1a. First, in the past six months have you participated in any market research discussions where you spent about two hours with about 10 other people and were paid for your time?

Yes TERMINATE
No CONTINUE

1b. Do you or any member of your family work for...READ LIST

___ A market research company
___ An advertising firm
___ A marketing department
___ Any type of food service
___ Or any health-related areas

(IF "YES" TO ANY — TERMINATE)

2. Which of the following categories includes your age?
Are you...READ LIST AND RECORD BELOW, FOLLOWING INSTRUCTIONS:

___ Under 25 .... TERMINATE
___ 25 - 34 .... CONTINUE
___ 35 - 44 .... CONTINUE
OBTAIN A MIX; RECRUIT FOR GROUP B
___ 45 - 54 .... CONTINUE
___ 55 - 64 .... CONTINUE
OBTAIN A MIX; RECRUIT FOR GROUP A
___ 65 and over .... TERMINATE

3. Are you currently…READ LIST AND RECORD BELOW:

___ Married
___ Single
___ Divorced/widowed/separated

OBTAIN A MIX

4. What is the highest level of education you have completed? Is it…READ LIST AND RECORD BELOW, FOLLOWING INSTRUCTIONS:

___ Some grade school ....CONTINUE
___ Grade school ....CONTINUE
___ Some high school ....CONTINUE
___ High school graduate ....CONTINUE
___ Some college and above ....TERMINATE

OBTAIN A MIX

5. Have you or anyone in your household been treated by a doctor for any sort of chronic health problem such as cancer, heart disease, high blood pressure, high cholesterol, diabetes, or hypertension?

___ Yes TERMINATE
___ No CONTINUE

6. Do you consider yourself…READ LIST AND RECORD BELOW, FOLLOWING INSTRUCTIONS:

___ Thinner than average
___ About average

RECRUIT 6 PER GROUP
(TRY FOR 3 OF EACH)

___ Heavier than average — RECRUIT 6 PER GROUP

7. And are you…READ LIST AND RECORD BELOW, FOLLOWING INSTRUCTIONS:

___ Black	PHILADELPHIA, RICHMOND, CHICAGO, OAKLAND: CHECK SEX BELOW AND, IF QUALIFIED, CONTINUE WITH QUESTION 8 ON PAGE 81
___ OTHERS:	TERMINATE

DO NOT ASK, JUST RECORD:

___ Male	PHILADELPHIA, OAKLAND:	CONTINUE
	RICHMOND, CHICAGO:	TERMINATE
___ Female	RICHMOND, CHICAGO:	CONTINUE
	PHILADELPHIA, OAKLAND:	TERMINATE

___ White	BALTIMORE, RICHMOND, CHICAGO, SAN JOSE: CHECK SEX BELOW AND, IF QUALIFIED, CONTINUE WITH PAGE 85	
___ Male	RICHMOND, CHICAGO:	CONTINUE
	BALTIMORE, SAN JOSE:	TERMINATE
___ Female	BALTIMORE, SAN JOSE:	CONTINUE
	RICHMOND, CHICAGO:	TERMINATE
___ Hispanic	SAN JOSE, SAN ANTONIO, MIAMI, NEW YORK: CHECK SEX BELOW AND, IF QUALIFIED, CONTINUE WITH PAGE 83	
___ Male	SAN JOSE, NEW YORK:	CONTINUE
	SAN ANTONIO, MIAMI:	TERMINATE
___ Female	SAN ANTONIO, MIAMI:	CONTINUE
	SAN JOSE, NEW YORK:	TERMINATE
___ Other	TERMINATE	

8. What would you say is the total income in a year of everyone living in your household...RECORD BELOW:

____

9. How may people live in your household, including children?...RECORD BELOW:

____

NOTE: USE TABLE ON FOLLOWING PAGE TO DETERMINE ELIGIBILITY.

ELIGIBILITY TABLE

	12,100/14,299	14,300/16,199	16,200/18,399	18,400/20,299	20,300/23,999	24,000/28,099	28,100/32,099	32,100/36,099	36,100/40,099	40,100/45,099	45,100/48,099	48,100/52,099
1	B	B	A	A								
2		B	B	A	A							
3			B	B	A	A						
4				B	B	A	A					
5					B	B	A	A				
6						B	B	A	A			
7							B	B	A	A		
8								B	B	A	A	
9									B	B	A	A

A - Higher $
B - Lower $

NOTE: AN "A" IN THE BOX WHICH CORRESPONDS TO RESPONDENT'S INCOME/HOUSEHOLD SIZE ABOVE MEANS THEY QUALIFY FOR GROUP A.

A "B" MEANS THEY QUALIFY FOR GROUP B.

IF THERE IS NOTHING IN THE BOX, RESPONDENT DOES NOT QUALIFY FOR THE GROUPS.

YOU MUST CHECK THEIR AGE AND SEE IF THEIR AGE QUALIFIES THEM FOR THE SAME GROUP AS DOES THEIR INCOME/HOUSEHOLD SIZE BOX. IF, FOR EXAMPLE, SOMEONE IS 25-34 AND THUS QUALIFIES FOR GROUP B, BUT THERE IS AN A IN THE CHART ABOVE, **THIS RESPONDENT DOES NOT QUALIFY FOR THE GROUPS.**

8. With which ethnic group do you identify? DO NOT READ LIST. RECORD BELOW AND FOLLOW INSTRUCTIONS:

___ Mexican-American/Chicano	SAN JOSE, SAN ANTONIO:	CONTINUE
	OTHERS:	TERMINATE
___ Cuban	MIAMI:	CONTINUE
	OTHERS:	TERMINATE
___ Puerto Rican	NEW YORK:	CONTINUE
	OTHERS:	TERMINATE
___ Central and South American	ALL CITIES:	TERMINATE
___ Other		TERMINATE

9. What would you say is the total income in a year of everyone living in your household...RECORD BELOW:

____

10. How many people live in your household, including children? RECORD BELOW:

____

11. Are you comfortable speaking Spanish? RECORD BELOW:

____

NOTE: USE TABLE ON FOLLOWING PAGE TO DETERMINE ELIGIBILITY.

ELIGIBILITY TABLE

	12,100 / 14,299	14,300 / 16,199	16,200 / 18,399	18,400 / 20,299	20,300 / 23,999	24,000 / 28,099	28,100 / 32,099	32,100 / 36,099	36,100 / 40,099	40,100 / 45,099	45,100 / 48,099	48,100 / 52,099
1	B	B	A	A								
2		B	B	A	A							
3			B	B	A	A						
4				B	B	A	A					
5					B	B	A	A				
6						B	B	A	A			
7							B	B	A	A		
8								B	B	A	A	
9									B	B	A	A

A - Higher $
B - Lower $

NOTE: AN "A" IN THE BOX WHICH CORRESPONDS TO RESPONDENT'S INCOME/HOUSEHOLD SIZE ABOVE MEANS THEY QUALIFY FOR GROUP A.

A "B" MEANS THEY QUALIFY FOR GROUP B.

IF THERE IS NOTHING IN THE BOX, RESPONDENT DOES NOT QUALIFY FOR THE GROUPS.

YOU MUST CHECK THEIR AGE AND SEE IF THEIR AGE QUALIFIES THEM FOR THE SAME GROUP AS DOES THEIR INCOME/HOUSEHOLD SIZE BOX. IF, FOR EXAMPLE, SOMEONE IS 25-34 AND THUS QUALIFIES FOR GROUP B, BUT THERE IS AN A IN THE CHART ABOVE, **THIS RESPONDENT DOES NOT QUALIFY FOR THE GROUPS.**

8. What would you say is the total income in a year of everyone living in your household...RECORD BELOW:

____

9. How many people live in your household, including children? RECORD BELOW:

____

NOTE: USE TABLE ON FOLLOWING PAGE TO DETERMINE ELIGIBILITY.

ELIGIBILITY TABLE

	12,100 14,299	14,300 16,199	16,200 18,399	18,400 20,299	20,300 23,999	24,000 28,099	28,100 32,099	32,100 36,099	36,100 40,099	40,100 45,099	45,100 48,099	48,100 52,099
1	B	B	A	A								
2		B	B	A	A							
3			B	B	A	A						
4				B	B	A	A					
5					B	B	A	A				
6						B	B	A	A			
7							B	B	A	A		
8								B	B	A	A	
9									B	B	A	A

A - Higher $
B - Lower $

NOTE: AN "A" IN THE BOX WHICH CORRESPONDS TO RESPONDENT'S INCOME/HOUSEHOLD SIZE ABOVE MEANS THEY QUALIFY FOR GROUP A.

A "B" MEANS THEY QUALIFY FOR GROUP B.

IF THERE IS NOTHING IN THE BOX, RESPONDENT DOES NOT QUALIFY FOR THE GROUPS.

YOU MUST CHECK THEIR AGE AND SEE IF THEIR AGE QUALIFIES THEM FOR THE SAME GROUP AS DOES THEIR INCOME/HOUSEHOLD SIZE BOX. IF, FOR EXAMPLE, SOMEONE IS 25-34 AND THUS QUALIFIES FOR GROUP B, BUT THERE IS AN A IN THE CHART ABOVE, **THIS RESPONDENT DOES NOT QUALIFY FOR THE GROUPS.**

INVITATION TO GROUPS:

Thanks for answering my questions. The group that best fits you meets on (DAY, DATE) at (TIME), here in our offices at (GIVE LOCATION). The session will last two hours, and start and end on time. Refreshments will also be served, and you will be paid $____ in cash for your time.

Will your schedule permit you to attend?

Yes CONTINUE
No THANK AND TERMINATE

Great! So that we may send you a confirmation letter and directions to our office, I need to get the correct spelling of your name, and your address and phone numbers.

NAME ________________________________ HOME PHONE ____________________

ADDRESS ______________________________ WORK PHONE ____________________

CITY ______________________ STATE ________ ZIP __________

We will be sending you a confirmation letter and directions in the next couple of days, and giving you a reminder call the day before the group. If you have any questions or find that you will be unable to attend, please call my supervisor at (PHONE NUMBER) so we may schedule a replacement and ensure that we have 10 people in the group.

Thanks very much for your time! We'll see you at the discussion group.

Recruited by: ______________________________

Date: ______________________________

Confirmation letter sent on: ______________________

Confirmation call made by: ______________________

APPENDIX B

MODERATOR'S GUIDE

DATE: August 21, 1989 (Revised)   TOPIC: Health Issues

INTRODUCTION: Hello. My name is__________and I'm the moderator today. We'll be here for about two hours, and the purpose of today's group is to talk about issues related to your health.

SELF DISCLOSURE: I'm a freelance consultant—I don't work for any particular company. I travel around the country talking with various groups of people about different products, services, and ideas.

Feel free to make any negative or positive comment about any of the things we'll be discussing today. I have nothing to sell to you; I did not design any of the materials you might see today, and my job is not on the line!

GROUND RULES: For those of you who have never been in a focus group before, I'd like to explain a few things: The microphones go back to that set of audio tape machines...(transcripts, reports, etc.). The mirror behind me is a two-way mirror.

To allow conversation to flow more smoothly, I will offer the following ground rules, so we'll all be moving in the same direction:

1. Please talk one at a time and in a voice at least as loud as mine.
2. I'd like to thank you for two things: arranging your schedules to be here, and for voicing your opinions!
3. I need to hear from all of you during the course of the conversation, but you do not need to answer every question.
4. You do not need to address all of your comments to me to get them on the table. You can respond directly to what someone else says, BUT avoid all side conversations with your neighbors.
5. There are no right answers in market research, just different opinions. That's exactly what we're looking for today, different points of view.

6. We will observe the no-smoking rule during this session.

SELF INTROS: Please introduce yourself to the group and tell us:

- First name
- Age
- How long you have lived in the area
- If you're single or married, have any kids

MODERATOR SELF-DISCLOSURE: Be appropriate to the setting

I. EATING HABITS/ACTIVITIES (20)

1. What kinds of things do you do in your spare time?

   LOOK FOR ACTIVITIES WITH FRIENDS. LISTEN FOR WHETHER THESE ACTIVITIES SEEM TO BE SEDENTARY OR ACTIVE

2a. Tell me about the kind of exercise you get in the course of a regular day.

2b. Is this exercise enough to keep you fit?

PROBE FOR:
- Do you do a lot of walking/running around and keeping busy ?
- Do you lift a lot of things — like what?
- What do you have to do to be more physically fit?

3. Describe for me a typical day for you, including meals.

   PROBES: WHAT TIME DO YOU EAT?

4. Do you eat/drink differently on weekends than you do during the week?

   LOOK FOR: Do you "splurge" on weekends?

5. PROBE FOR: Time of meals
   - Eating together
   - Variety of meals
   - Making favorites

LISTEN FOR: How food is cooked!

II. LIFE'S PRIORITIES (20)

1. We're going to do something now that I think you'll find interesting. I have a set of cards for each of you (BEGIN TO HAND OUT CARD SETS). You all have the same set of cards — there are 16 in each set — and on each card there's a different statement about something that may or may not be important in your life.

   What I want you to do is put these cards in order according to what is important to you. Put the card with the statement most important to you on top, then put the second most important card behind that one, and so on, until you have all 16 cards in order. Any questions?

   ALLOW RESPONDENTS 5 MINUTES TO SORT CARDS.
   REMIND THEM TO LEAVE THE CARDS ON THE TABLE IN ORDER

2. Everybody finished? Great! What I want to talk about now is how come each of you put different cards in different orders. Anybody can start — tell me the card you have on top, and a little bit about what made you put that card on top.

   GO THROUGH THE TOP THREE ISSUES OVERALL, LISTING THEM ON
   THE FLIPCHART IF THERE IS ENOUGH GROUP AGREEMENT TO DO THIS.

ISSUES TO BE COVERED INCLUDE:

1. Having enough money
2. A good education for my kids
3. Enjoying my job
4. Looking good
5. Having a good love life
6. Enjoying my free time
7. Being happy with my family
8. Becoming rich
9. Having kids
10. Having a good job
11. Living a long time
12. Being happy with my life
13. Being healthy
14. Getting along with others
15. Making and keeping good friends
16. Being close to God

III. HEALTH PROMOTION

1. One of the cards said "being healthy." Someone tell me what "being healthy" means to you. Tell me what position "healthy" is in and why it's there.

    Flipchart: "Healthy is..."

    * Flipchart: What's the point to being healthy?

        PROBE REASONS FOR RESPONSES. LOOK FOR ROLES IN LIFE
        AS THEY APPLY, E.G., "I HAVE TO STAY HEALTHY TO TAKE CARE OF MY KIDS"

3. What does being sick mean?

    * Flipchart: "Sick is..."

4. How come people get sick?

    LOOK FOR: DIDN'T TAKE CARE OF MYSELF
    CAUGHT SOMETHING FROM SOMEONE (E.G., FLU)
    JUST HAPPENS — NOTHING I CAN DO

5. What kinds of things can you do, or do you do now, to stay healthy?

    * Flipchart

        LOOK FOR EXERCISE, EATING HABITS, WEIGHT CONTROL BUT ONLY IN A VERY GENERAL SENSE — THIS AREA WILL BE COVERED IN GREATER DETAIL LATER ON

    Give yourself a score [1-10] — Defend reasons — What score you gave yourself, give reasons. How healthy do you think you are on the scale?

6. FOR RESPONSES TO Q.5, ASK: (E.G., EXERCISE — REGULAR OR SPORADIC?)

    Tell me about your attitude toward exercise.

7. IF NOT ALREADY DISCUSSED, ASK:
    What about watching your weight? Does that have anything to do with your health?

        PROBE RESPONSES FULLY

8. What if someone told you you could increase your chances of staying healthy/not getting sick by changing either your exercise or eating habits?

    LOOK FOR: WOULD YOU BELIEVE THEM?
    WOULD YOU CHANGE?
    REASONS FOR RESPONSES

    What control can you exercise over your own health?

9. Have you recently heard/seen anything about being or getting healthy?
    (television advertising, magazines, brochures)?

    PROBES: WHERE DID YOU HEAR THIS INFORMATION? DO YOU BELIEVE IT?

10. IF THEY DO BELIEVE IT, ASK:

What makes you trust that this information is true?

IF THEY DON'T, ASK:

Who would you trust?

PROBE RATIONALES FOR RESPONSES

11. IF NOT ALREADY DISCUSSED, ASK:

Is there a difference between "keeping myself healthy" and "not getting diseases"?

PROBE REASONS FOR RESPONSES

IV. BEHAVIOR AND HEALTH

1. What does it mean to eat a healthy diet?

   PROBE FOR FOODS/INGREDIENTS — E.G., FAT, CHOLESTEROL, FIBER —
   DO YOU ASSOCIATE THESE WITH HEALTH?

2a. If, for example, you were told that you had to cut fat from your diet, what would you do?

2b. Think about the way different foods are labeled. What do you look for on food labels?

   PROBE FOR EXAMPLES OF LABELING, SUCH AS THE FACT
   THAT PEANUT BUTTER HAS NO CHOLESTEROL

3. What does it mean to stay in shape, or be fit?

4. If you were told that you have to be more physically active, how would you do that — what would you do?

5. If you want to change some of these habits, and know that you should, what's the **one** reason you haven't changed?

   EXAMINE BARRIERS TO CHANGING BEHAVIOR — E.G., TIME, COST,
   TRANSPORTATION, KNOWLEDGE
   ****ESPECIALLY LOOK AT COST AND HOW IT RELATES TO THEIR INCOME

6. Have you changed either what you eat or your exercise habits in the past year or so?

   IF YES, PROBE FOR SPECIFICS

   LOOK FOR WHAT THEY HAVE DONE TO CONTROL THEIR WEIGHT

7. What would have to happen in your life for you to change either your eating or exercise habits?

8. How would your family feel about changing their eating/exercise habits?

   PROBE FOR: WHO IN THE FAMILY WOULD DECIDE TO DO THIS?
   WHAT WOULD LEAD THEM TO BELIEVE THIS — DOCTOR, FAMILY, OTHER SOURCES?

9. Who in your family really makes the rule about what you eat and when?

10. FOR WOMEN'S GROUPS, ASK: What about the men in your lives — if you've ever gone on a diet, how do they feel about it/how do they act?

11. FOR MEN'S GROUPS, ASK: What about the women in your lives — do they go on diets? How do you feel about that?

    ALSO ASK MEN: How do the women in your lives react when you go on a diet?

12. Pretend you have a friend who needs to lose 45 lbs. What advice would you give to motivate/encourage him?

    PROBE REASONS FOR THOSE TYPES OF MOTIVATIONS/ENCOURAGEMENTS

V. SOURCES OF INFORMATION

1a. Let's say you wanted to get some information on eating better, or dieting, or exercise, or health things like that. Where do you think you could find this information?

Would you talk to someone or would you want something in writing?

PROBE: WHO WOULD YOU ASK — DOCTOR, FRIENDS, FAMILY?
WHO EXACTLY IN THE FAMILY?

1b. If you could get any information you wanted, no barriers to learning anything you wanted to know, what information would you ask for?

1c. Which **one** of these sources is most credible?

1. Hospitals
2. Bookstores
3. Books and pamphlets from the Federal Government
4. Magazines

PROBE LEVEL OF INTEREST IN CHURCH-RELATED MATERIALS/ ACTIVITIES, BASED ON THEIR OWN LEVEL OF CHURCH INVOLVEMENT

PROBE PERCEIVED LEVEL OF CHURCH INVOLVEMENT APPROPRIATENESS AND CREDIBILITY OF CHURCH AS A SOURCE OF INFORMATION AND PROGRAMS AND SERVICES

WHITE AND BLACK GROUPS: SKIP TO VII FALSE CLOSE
HISPANIC GROUPS: CONTINUE WITH SECTION VI

VI. HISPANIC GROUP CONCERNS

HISPANIC GROUPS ONLY:

1. If you had questions about your health, who would you ask?

   PROBES: HOW COME YOU WOULD ASK THEM?

2. When or if you do get information about better health, should it be in Spanish, English, or both?

   PROBE INTENSITY AND REASONS FOR CHOICE

3. Is there a difference between what is written down and what is spoken?

4. Where do you get the information —
   LOOK FOR MEDIA CHANNELS

VII. BLACK GROUP CONCERNS

1. Do blacks have different concerns about health, diet, or fitness than whites?

2. How are blacks different in these issues?

VII. FALSE CLOSE

I have to step out for a moment. Please don't leave the room — I'll be right back.

OBSERVERS: PLEASE HAVE THE ELECTED CLIENT SPOKESPERSON READY TO GO OVER WITH THE MODERATOR ANY ADDITIONAL QUESTIONS YOU HAVE FOR THE GROUP. THESE QUESTIONS SHOULD BE JOTTED DOWN IN THE SPACE BELOW, READY FOR YOUR SPOKESPERSON TO GO OVER WITH THE MODERATOR:

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

Thanks a lot for your time. Have a great evening!

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